

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Exhibit A

Declaration of Douglas Ballotti

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF INDIANA

UNITED STATES OF AMERICA,
STATE OF INDIANA,

Plaintiffs,

v.

ATLANTIC RICHFIELD COMPANY, ET AL.,

Defendants.

NO. 2:14-CV-00312

JUDGE PHILIP P. SIMON

DECLARATION OF DOUGLAS BALLOTTI

I, Douglas Ballotti, do declare and affirm as follows:

PROFESSIONAL BACKGROUND AND PERSONAL KNOWLEDGE

1. I am currently employed as the Acting Division Director for the Superfund Division at the U.S. Environmental Protection Agency's ("EPA's") Region 5 Office in Chicago, Illinois. I have been Acting Division Director since June 2016. I have been with EPA for 31 years, since 1985. Before becoming Acting Division Director, I spent 13 years as Deputy Director for the Superfund Division, beginning in 2003. I have also been an Enforcement Coordinator (1995 – 2003), Section Chief (1988 – 1995), and Remedial Project Manager (1985 – 1988) for the Superfund Division. I earned a Bachelor of Science degree in Geology from Northern Illinois University (1981).

2. As Acting Division Director, I manage the largest Superfund Division in the nation. The Region 5 Superfund Division has over 250 employees, who not only work to remediate Superfund sites, but also to respond to other environmental emergencies, oil spills, and natural disasters.

States within Region 5—Michigan, Ohio, Indiana, Illinois, Wisconsin, and Minnesota—have historically been some of the most industrialized in the nation and over 250 Superfund sites in the region are on EPA’s National Priorities List. At this time, actual construction is taking place at over 30 Superfund sites within Region 5, and an additional 68 sites are undergoing various levels of pre-construction sampling and assessment. The Region 5 Superfund Division cleanup budget is approximately \$50 to \$60 million each year. I sign off on all major Superfund decisions made within the Region.

3. Over the course of my 30 years with EPA as a project manager, first-line supervisor, and senior manager, I have become familiar with and been involved in almost all aspects of Superfund’s remedial process. As Acting Division Director, I am also specifically familiar with and have been briefed on the Remedial Investigation and Feasibility Study (“RI/FS”), Record of Decision (“ROD”), and Consent Decree for the U.S. Smelter and Lead Refinery, Inc. Site (“USS Lead Site” or “Site”) in East Chicago, Indiana.

4. Since becoming Acting Division Director, EPA’s response at the Site has taken up the vast majority of my time. I have personally overseen the ongoing Superfund response and enforcement efforts related to the Site. As described in greater detail within this Declaration, I authorized the indoor sampling, indoor cleaning and temporary relocation efforts in the West Calumet Housing Complex in Zone 1, the indoor cleaning and outdoor excavation work in Zone 2, and the indoor cleaning work in Zone 3. I also approved the Water Pilot Study in Zones 2 and 3 and various forms of data sharing and management. In addition, I have been briefed on any number of decisions at the Site that do not require my authorization.

5. On a day-to-day basis, I have been involved in decisions related to staffing, sampling and the general scope of work at the Site, and I receive daily updates and briefings from staff and

management. I have been responsible for briefing Acting Regional Administrator Robert A. Kaplan on events at the Site and have regularly and similarly briefed EPA's Assistant Administrator for the Office of Land and Emergency Management ("OLEM"), Mathy Stanislaus, and EPA's Acting Deputy Administrator, Stan Meiburg. I have been EPA's lead representative in a number of conversations with outside parties, including with the City, the Applicants (November 10, 2016), the Press, and the public at large, and am regularly at the Site for many of these conversations.

6. The statements in this declaration are based on my personal knowledge and on information provided to me by other employees of EPA.

OVERVIEW OF DECLARATION

7. This Declaration has been divided into four sections: (I) Site Background; (II) Consent Decree and EPA's Remedial Design Actions; (III) EPA's Response Actions in Zones 1, 2, and 3 from May 2016 to the Present; and (IV) EPA's Current Plans Regarding Future Actions in Zones 1, 2, and 3.

I. SITE BACKGROUND

8. The USS Lead Site is located in the City of East Chicago, Indiana. The name of the Site comes from the name of a company—U.S. Smelter and Lead Refinery Inc. ("USS Lead")—that owned and operated a primary and secondary lead smelter at 5300 Kennedy Avenue, East Chicago, (the "USS Lead Facility") from approximately 1920 through 1985. Primary lead smelting operations at the USS Lead Facility, however, began in 1906, prior to USS Lead's ownership. Maps of the Site are included as Attachments A-1 and A-2 and are explained in greater detail Paragraphs 13 and 18, respectively.

9. Other major manufacturing operations on or near USS Lead's Facility included a white lead and zinc oxide manufacturing facility and a lead/metal smelter owned and operated by subsidiaries of Anaconda Copper Mining Company. Both of these operations were located in an area that now houses the West Calumet Housing Complex, a public housing development. In addition, the E. I. du Pont de Nemours and Company ("DuPont") and its predecessor owned and operated a large facility at 5215 Kennedy Ave., East Chicago, that, among other things, manufactured a lead arsenate pesticide. That property has been owned and operated by The Chemours Company ("Chemours") since 2015, when Chemours was spun off from DuPont.

10. In 1985, USS Lead ceased operations. Starting in 1993, USS Lead began a cleanup of its facility pursuant to an agreement with EPA under the Resource Conservation and Recovery Act ("RCRA"). The majority of the contamination at 5300 Kennedy Ave. was subsequently cleaned up under RCRA. In the mid-2000's, EPA's RCRA program transferred responsibility for any final cleanup of the USS Lead facility to its Superfund program. Additionally, because unlike RCRA, CERCLA provides EPA with greater authority to address contamination beyond a facility's boundaries, the Superfund Division also began to further investigate contamination in the surrounding residential neighborhood.

11. Although the facts will differ from Superfund site to Superfund site, EPA has a relatively formulaic process for assessing and selecting federal responses to the release of hazardous substances. That process is codified in the National Oil and Hazardous Substances Pollution Contingency Plan—otherwise known as the National Contingency Plan or "NCP"—at 40 C.F.R. Part 300. Briefly summarized, EPA must:

- a. Perform a Remedial Investigation (“RI”). The purpose of the RI is to collect the preliminary data necessary to adequately characterize the nature and extent of contamination at a site for the purposes of developing and evaluating remedial alternatives.
- b. Perform a Feasibility Study (“FS”). The purpose of the FS is to develop and evaluate remedial alternatives so that the appropriate remedy may be selected for a site.
- c. Issue a Proposed Plan for remediation. Once EPA has characterized a site and evaluated its remedial options, it must select a preferred remedy, document that selection in a proposed plan for action at the site, then put that proposed plan out for public comment.
- d. Issue a Record of Decision (“ROD”). After considering all significant comments to its proposed plan, EPA must then make a final remedy selection, which is documented in a Record of Decision for the site. Records of Decision do not include or specify funding mechanisms.

EPA followed this process at the USS Lead Site, and additional details regarding each of these steps as they pertain to the USS Lead Site are included within this Declaration.

12. In 2009, EPA placed the USS Lead Site on the National Priorities List (“NPL”), which is the list of national priorities among the known releases or threatened release of hazardous substances, pollutants, or contaminants throughout the United States. The NPL is intended primarily to guide EPA in determining which sites warrant further investigation. These further investigations allow EPA to assess the nature and extent of public health and environmental risks associated with the site and to determine what CERCLA-financed remedial actions, if any, may be appropriate. Inclusion of a site on the NPL does not imply that federal CERCLA monies will be expended to clean up a Site. It means only that a site is eligible for CERCLA-financed remedial action.

13. In placing the USS Lead Site on the NPL, EPA subdivided the Site into two “Operable Units,” each of which represents distinct areas at the Site. Operable Unit 1 (“OU1”) consists of surface and subsurface soil in the yards of an East Chicago residential area known as the Calumet neighborhood. It is generally bounded on the north by East Chicago Avenue; on the east by Parrish Avenue; and the south by East 151st Street/149th Place; and on the west by the Indiana Harbor Canal. Operable Unit 2 (“OU2”) consists of the approximately 79 acres of land at 5300 Kennedy Ave. Attachment A-1 is a map showing the boundaries of OU1 and OU2. After the NPL listing, EPA added groundwater located beneath both the Calumet neighborhood and the USS Lead Facility to Operable Unit 2.

14. EPA then developed and selected an overall cleanup remedy for Operable Unit 1 in accordance with the procedures outlined in the NCP.

a. In June 2009, EPA began a series of investigations and studies prescribed by the NCP.

b. EPA performed a Remedial Investigation (“RI”) of OU1 to assess site conditions and collect data for the purpose of developing and evaluating effective remedial alternatives, as prescribed by 40 C.F.R. § 300.430(d). In the first phase of the RI, EPA collected more than 700 composite and grab soil samples for analysis via X-ray fluorescence (“XRF”) and sent 20% of these to a laboratory in order to develop a correlation between field XRF analyses and lab analysis of soil samples. EPA also evaluated soil samples for a full suite of contaminants, including volatile organic compounds (“VOCs”), semi-VOCs, polychlorinated biphenyls (“PCBs”), and pesticides.

c. In the second phase of the RI, EPA took approximately 190 more soil samples and sent all of these samples to a laboratory where either total metals or polycyclic aromatic

hydrocarbons (“PAHs”) were analyzed. As to PAHs, EPA specifically concluded that there was no discernible pattern of highly impacted PAH concentrations that would indicate that these compounds were of concern at OU1. EPA, *Remedial Investigation Report, USS Lead Site* (June 2012), App. Ex. I at 187–90.

d. The purpose of any Superfund Remedial Investigation/Feasibility Study is to assess site conditions and evaluate alternatives to the extent necessary to select a remedy. Sampling every property is generally not needed in order to have enough information to develop a list of remedial alternatives. As the NCP states (at 40 C.F.R. 300.430(a)(2)), “[t]he scope and timing of these activities should be tailored to the nature and complexity of the problem and the response alternatives being considered.” EPA guidance, included as Attachment A-3, further states that “[b]ecause of the inherent uncertainties associated with Superfund sites, it is impossible to definitively characterize the nature and extent of contamination at a site. Adequate site characterization requires data that meet data quality objectives, define the risks posed by a site, demonstrate clearly the need for remedial action, and support the rationale for selecting a remedial action alternative.” The data developed during the remedial investigation at this site meets these criteria.

e. As part of its Remedial Investigation, EPA performed a baseline Human Health Risk Assessment (“HHRA”) to identify the current and potential threats to human health from the contaminants in the soil at OU1, as prescribed by 40 C.F.R. § 300.430(d)(4). Specifically, the purpose of the HHRA is to determine a remediation target that will reduce long term (*i.e.*, not current-resident specific) risks associated with contamination at the Site. To that effect, the HHRA evaluated three types of risk—cancer risk, non-cancer risk, and risk from lead—based on land use type (*e.g.*, residential, school, recreational) and potential

workers (*e.g.*, utility and construction workers). The HHRA alone is 200 pages long and includes over 1700 pages of attachments.

f. Relying upon the data developed during the Remedial Investigation, EPA performed a Feasibility Study to develop and evaluate a range of remedial alternatives that could be considered in the process of selecting the appropriate remedial action, as prescribed by 40 C.F.R. § 300.430(e). The alternatives subject to detailed analysis were: no action; on-site soil cover plus institutional controls; excavation of soil exceeding remedial action levels (“RALs”) to a maximum depth of 24 inches below ground surface, plus off-site disposal plus *ex-situ* (*i.e.*, off-site) treatment; and excavation of soils to native sand plus off-site disposal plus *ex-situ* (*i.e.*, off-site) treatment. Each alternative was evaluated in light of nine criteria specified in the NCP, 40 C.F.R. § 300.430(e)(9)(iii), including overall protectiveness of human health and the environment, compliance with applicable or relevant and appropriate requirements, long-term effectiveness and permanence, risk reduction (*i.e.*, reduction of toxicity, mobility, or volume through treatment), short-term effectiveness, implementability, and cost. The nine evaluation criteria serve as the basis for conducting the detailed analyses during the Feasibility Study and for subsequently selecting an appropriate remedial action. These nine criteria are derived from the statutory principles for the selection of remedies set out in Section 121 of CERCLA and ensure that remedies are protective of human health and the environment as well as cost effective and address the additional technical and policy considerations that have proven to be important for selecting among remedial alternatives.

g. In June 2012, in accordance with 40 C.F.R. §§ 300.430(d) and (e), EPA issued final reports on its Remedial Investigation and Feasibility Study. The text for both reports

combines to over 300 pages. Including appendices, the final Remedial Investigation report alone is over 9000 pages long.

h. In July 2012, EPA issued a proposed Remedial Action Plan for OU1 and published that Proposed Plan and solicited public comments, as prescribed by 42 U.S.C. § 9617(a) and 40 C.F.R. § 300.430(f)(2), (f)(3).

i. The Proposed Plan described the Site history, Site characteristics, and Remedial Investigation results. It summarized Site risks and identified and described the four different remedial alternatives that EPA evaluated during the Feasibility Study. Finally, it identified EPA's "Preferred Alternative" which was the excavation of soils exceeding the remedial action levels down to a maximum depth of 24 inches below grade, plus off-site disposal and *ex situ* treatment.

j. The initial 30-day period of the public comment on the Proposed Plan ran from July 12, 2012 through August 11, 2012. At the request of the City of East Chicago, EPA also extended the public comment period another 30 days, until September 10, 2012.

k. On July 25, 2012, EPA held a previously-announced public meeting at the East Chicago Public Library where EPA solicited and received oral comments. A total of 42 people attended that meeting, including 15 residents of the Site, the East Chicago Mayor (Mayor Copeland) and East Chicago's technical representative, local news organizations, and potentially responsible parties.

l. During the public comment period, EPA received written comments from 3 private citizens and from 2 potentially responsible parties ("PRPs"), namely USS Lead and Atlantic Richfield Company. While the City ultimately never submitted written comments on the Proposed Plan, the City participated in the public hearing. Both Mayor Copeland

and East Chicago's technical representative made comments on the Proposed Plan. The proceedings of the public meeting were transcribed. EPA considered the oral comments on an equal footing with the written comments.

m. EPA's summary of and response to the comments it received can be found on pages 53–57 of the Record of Decision for the Site (further described in the next sub-paragraph). The comments were mixed: One of the residents wrote in support of the selected remedy. Both of the PRPs argued that the remedy was too conservative and not cost-effective. The Mayor made statements favoring a more expansive remedy. EPA ultimately determined that there was sufficient data to support sampling for and excavation of contaminated soil down to up to 24 inches below grade. That said, EPA also determined that requiring excavation of all of the contaminated soils to native sand would be substantially more expensive and offer little to no additional protectiveness.

n. If Applicants had concerns with the Remedial Investigation and Feasibility Study that EPA performed, they could have raised those concerns during the public comment period for the remedy. But while several members of the community commented on the proposed plan, none took issue with the underlying studies or claimed that EPA had failed to follow the requirements of the law.

o. Following the close of the public comment period and consideration of the comments received during this period, EPA issued a Record of Decision selecting the final cleanup remedy for OU1 of the Site on November 30, 2012, as prescribed by 40 C.F.R. §§ 300.430(f)(4) and (5). Consistent with the Preferred Alternative identified in the Proposed Plan, and based on an evaluation of the nine criteria set forth in the NCP, EPA determined that the appropriate remedy for OU1 of the Site consists of:

- Excavating soil that contains lead or arsenic in concentrations that exceed the remedial action levels (400 ppm for lead and 26 ppm for arsenic) to a maximum depth of 24 inches below ground surface (“bgs”);
- Disposing of excavated soil at a CERCLA-approved landfill;
- Placing clean soil in the excavated area to the original grade; if contaminated soil exists at depths greater than 24 inches bgs, placing a visual barrier above the contaminated soil before backfilling with clean soil; and
- Placing Institutional Controls (*i.e.*, deed restrictions) on properties where contamination remains below 24 inches bgs.

p. EPA completed this initial investigative portion of the remediation process for the Site, which officially ends once a Record of Decision is signed, in under four years, which is quick. Generally speaking, this process can take anywhere from a few years to more than a decade to complete. In fact, the median time taken to complete this process for other Midwest sites is just under 10 years, and the average time is just under 16 years.

15. As prescribed by 40 C.F.R. § 300.800, EPA compiled an administrative record supporting its remedy selection for OU1 of the Site (the “Site Administrative Record”). The Site Administrative Record includes the documents and reports referenced above, as well as many other documents. The Site Administrative Record is accessible to members of the public at <https://www.epa.gov/uss-lead-superfund-site>, at the Superfund Records Center located at EPA Region 5 at 77 W. Jackson Blvd. in Chicago, IL, and at both branches of the East Chicago Public Library, at 2401 E. Columbus Drive in East Chicago, IN, and at 1008 W. Chicago Ave., East Chicago, IN. The 26-page combined index of documents that comprise the Site Administrative Record is included as Attachment A-4 to this Declaration.

16. In 2003, EPA developed the *Superfund Lead-Contaminated Residential Sites Handbook* to promote a nationally consistent decision-making process for assessing and managing risks associated with lead-contaminated residential sites across the country. The Handbook is primarily based on a compilation of the Superfund program's knowledge and experiences, as well as existing technical and scientific literature addressing lead-contaminated residential sites. A copy of the Handbook can be found as Attachment 1 to Appendix B of the Consent Decree in this case (pages 17–140 of ECF #2-2). EPA has developed and implemented cleanup plans at scores of other residential lead sites in the United States, including: Vasquez Boulevard and I-70, Denver, CO; Bunker Hill Mining & Metallurgical Complex, Smelterville, ID; Cherokee County, Galena, KS; Big River Mine Slag/St. Joe Minerals Corp., Desloge, MO; Madison County Mines, Fredericktown, MO; Oronogo-Duenweg Mining Belt, Joplin, MO; East Helena Site, East Helena, MT; Omaha Lead, Omaha, NE; National Zinc Corp., Bartlesville, OK; Midvale Slag, Midvale, UT; Tar Creek (Ottawa County), Ottawa County, OK; and RSR Corporation, Dallas, TX.

17. Although every lead contamination site presents its own unique set of facts and circumstances, EPA's selection of the remedy for the USS Lead Site is consistent with the remedies selected at these sites and with the Handbook.

II. CONSENT DECREE AND EPA'S REMEDIAL DESIGN ACTIONS

A. CONSENT DECREE

18. General. On October 28, 2014, this Court approved a Consent Decree for the performance of response actions consistent with the ROD in two areas of OU1. *United States, et al. v. Atlantic Richfield Co, et al.*, Civil Act. No. 2:13-cv-00312 (N.D. Ind.). That Consent Decree requires Defendants Atlantic Richfield and DuPont to pay all of EPA's costs for designing and implementing remedial action in what are called Zones 1 and 3 of OU1. Included as Attachment

A-2 is a map showing Zones 1, 2, and 3. Atlantic Richfield and DuPont also agreed to be responsible for transporting and disposing of the soils excavated in Zones 1 and 3, rather than having EPA undertake those tasks.

19. Zone 1. Zone 1 is comprised of the Carrie Gosch Elementary School, Goodman Park, several right-of-way strips of land, and the 346-unit West Calumet Housing Complex (“Housing Complex”), a low-rise, low-income public housing complex which is owned and operated by the East Chicago Housing Authority. The Housing Complex includes everything from one-bedroom units to five-bedroom homes and can house over a thousand people.

20. Zone 2. Zone 2 is comprised of approximately 596 properties, including: 529 residential properties (mostly single-family homes, but also including one nursing home, 3 homes that also serve as day cares, and several apartment buildings); 31 commercial/industrial properties (*e.g.*, restaurants); 2 parks; a number of properties owned by religious institutions; and 6 municipal properties (including a fire station, post office, water tower, a community center, *etc.*).

21. Zone 3. Zone 3 is comprised of approximately 480 properties, the vast majority of which are also single-family residential properties. Zone 3 also includes 12 commercial/industrial properties, Riley Park, and 2 properties affiliated with religious institutions, including St. Joseph’s Carmelite Home (a residential treatment center).

22. Phased Approach for Zones 1 and 3. Under the Consent Decree, EPA contemplated cleaning up Zone 1 before cleaning up Zone 3. However, for the reasons set forth in Part III.C below, EPA has started the cleanup of Zone 3 prior to starting Zone 1.

23. Phased Approach for Zone 2. Moreover, as described in the “Background” section of the Consent Decree, EPA had planned to start the cleanup of Zone 2 following the cleanup of Zones 1 and 3. Because of the huge amount of time (years) and resources (millions of dollars) often

required to remediate a Superfund site, EPA commonly undertakes Superfund cleanups in phases. For example, EPA Region 5 currently is cleaning up approximately 4,000 lead-contaminated residential properties in Jacobsville, Indiana, in phases. In the Jacobsville case, two separate RODs were signed in February 2008 and September, 2009, to address OU1 and OU2 of the site (each residential neighborhoods), respectively. At Jacobsville, the first phase of cleanup actually began in 2007, through EPA's removal program. Additional removal cleanups took place in 2008. The most recent phase—a remedial action phase—began in 2010 and is still ongoing. EPA estimates that work at the site will continue until 2020. For the USS Lead Site, there was nothing unusual about either negotiating with responsible parties for a settlement involving less than the full site or implementing the cleanup of a site in phases. However, notwithstanding the phased approach that EPA anticipated when it lodged the Consent Decree in this matter, EPA has elected to accelerate the cleanup of Zone 2 and has already remediated 17 properties. I describe EPA's current and future actions in Zone 2 in greater detail in Part IV.B below.

24. Public Notice and Comment. The Consent Decree was “lodged” with this Court on September 3, 2014, for the purpose of allowing the public a 30-day period to comment on the Decree, as required under 42 U.S.C. § 9622(d)(2). On that same day, EPA and the Department of Justice issued a press release announcing the settlement, included as Attachment A-5. On September 6, 2014, the Merrillville Post Tribune ran an article, included as Attachment A-6, describing the settlement. The article clearly indicated that that cleanup under the Decree did not include all three zones. On September 9, 2014, the Federal Register published notice of the lodging of the Consent Decree and invited public comments. The public comment period closed on October 9, 2014, and no public comments were submitted.

B. REMEDIAL DESIGN

25. General. Under the Consent Decree, EPA began Remedial Design in November 2014, to determine the scope of the cleanup consistent with the Record of Decision. Remedial Design includes the development of the actual planning for and design of the selected remedy as it applies to the site at large. As specifically applied to this site, Remedial Design includes detailed and exhaustive sampling to create precise blueprints for implementing the selected remedy on a property-by-property basis.

26. Scope of RD Sampling. Where, as here, the remedy calls for the excavation and disposal of yard soils exceeding lead and arsenic remedial action levels, the first phase of the Remedial Design process is the sampling of all yards to identify which ones need to be cleaned up. In addition, because the remedy does not require the excavation of soils that are not contaminated and does not require the excavation of contaminated soils below 24 inches below ground surface, sampling must take place at various “depth” intervals in order to establish the depth and vertical “cut lines” of the needed excavation.

27. Access. Prior to commencing any RD sampling, EPA must secure an agreement from a property owner for access to their property to take samples. Because Zone 1 has relatively few property owners, EPA readily secured access to sample all properties. For Zone 2, as of December 9, 2016, EPA has secured access for approximately 500 out of approximately 596 properties. For Zone 3, as of December 9, 2016, EPA has secured access for 419 out of approximately 480 properties.

28. Summary of RD Sampling and Analysis Procedures. The soil sampling procedures that EPA has been using during the Remedial Design phase of the OU1 cleanup are generally described

in EPA's *Superfund Lead-Contaminated Residential Handbook* and in Section 3 of the USS Lead Remedial Investigation. To simplify, generally speaking:

a. Each yard is divided into a front and a back yard. Each front and back yard is further divided into five "depth" horizons corresponding to six inch intervals as follows: 0–6 inches; 6–12 inches; 12–18 inches; 18–24 inches; and 24–30 inches. This "subdividing," therefore, generally results in ten soil samples for each yard: five in the front and five in the back. (A particular yard might not have ten total samples for a variety of reasons including but not limited to the possibility that native sand, rather than soil, exists at some of the lower depth intervals or a yard is quite small.)

b. To secure a representative sample at each depth horizon, soil is drawn from five different (ideally, equally spaced) locations within each depth horizon. These five different soil draws are then "composited": they are mixed together in a bowl or bag to create the one "composite" sample for that particular depth horizon. It is that "composite" sample that is then analyzed for lead and arsenic.

c. For Zone 1 and Zone 3 of OU1, EPA used X-Ray Florescence ("XRF") screening and/or laboratory analysis to evaluate the lead and arsenic levels in soil samples. For Zone 2, EPA has used only laboratory analysis.

i. Laboratory Analysis. Laboratory analysis measures the particular levels of lead and arsenic in a soil sample, and, upon validation of the results, does so with a relatively high level of accuracy. Turnaround time for lab results can vary from 48 hours (rush jobs, without validation) to 4–6 weeks (standard, with validation).

ii. XRF Screening. XRF screening uses spectrometry to determine the concentrations of lead and arsenic in a soil sample. A sampling crew "shoots" the soil

sample with a calibrated XRF device and reads the results. Turnaround time is immediate. XRF screening is less costly and less accurate than laboratory analysis. XRF screening in conjunction with laboratory analysis is a typical practice for many residential lead cleanups.

iii. In Zones 1 and 3, the majority of the soil samples were analyzed by XRF screening but a significant subset of these soil samples were also sent to a lab for analysis.

iv. In order to improve the accuracy of sampling results that had only XRF data, EPA employed a statistical analysis of lab and XRF data to develop a “correlation equation” for the original XRF results. EPA did this because XRF results are not as accurate as lab results, but a comparison of XRF and lab results allows EPA to determine what the error in XRF results is and to “correct” for that error. However, in order to perform the statistical analysis and generate an effective correlation equation, EPA generally waits until a significant amount of soil sample collection and laboratory analysis is done and the lab results are validated before generating an XRF correction equation. Many months may pass from the time of soil collection to the finalization of sampling results.

v. Once EPA has finalized its sampling results, it sends a letter explaining those results to residents. That letter also informs residents if remedial work is required at their property and provides a brief overview of the scope of that work. An example results letter is included as Attachment A-7.

vi. In this case, in Zone 1, although the first soil samples were collected from properties in November 2014, a correlation equation for all XRF-only sampling results was

only completed in April 2016. That equation was then applied to the XRF-only samples shortly thereafter.

vii. Zone 3 RD soil sampling collection commenced in May 2015, and EPA has sampled all 419 properties that it has secured access to. In August, EPA determined that a number of XRF results for arsenic in Zone 3 were not accurate enough to form the basis for Remedial Design. EPA remedied this in two ways. First, for selected properties that fell within certain criteria, EPA collected additional soil samples and had those samples analyzed by a laboratory. EPA then used the validated laboratory results as the final concentrations for those properties. Second, EPA performed additional statistical analyses of all of the Zone 3 XRF data. On the basis of that statistical analysis, EPA decided to no longer use arsenic or lead correlation equations for XRF results. Instead, EPA decided to use, for both arsenic and lead, the maximum (instead of the average) value of the three measurements taken by the XRF device. For arsenic, this change alone gave EPA a 95% confidence that any sample screened by XRF did not yield a false negative for remediation-eligible levels of contamination. For lead, EPA also lowered the concentration value triggering remediation to 325 ppm which gave EPA a 93% confidence that any sample screened by XRF did not yield a false negative for remediation-eligible levels of contamination. (This lower value was for samples that had XRF results only; the trigger level for samples analyzed by a laboratory remained at 400 ppm). With these changes to the methods of evaluating arsenic and lead XRF screenings, the risk of failing to clean up a remediation-eligible property approaches zero percent. EPA made these decisions in September. EPA's memorandum explaining this determination is included as

Attachment A-8. Before doing any work in Zone 1, EPA will reevaluate the Zone 1 XRF data to ensure a fully protective remedy.

29. Remedial Design Drawings. After EPA completes sampling and has validated data, it can develop Remedial Design drawings. An RD drawing for a property tells the work crew what depth they need to dig to and what concentrations of lead or arsenic will be found there. For example, the RD drawing for a property might contain the following table:

Depth (in.)	Front - Lead (ppm)	Front - Arsenic (ppm)	Back - Lead (ppm)	Back - Arsenic (ppm)
0 - 6	690 J	40 U	3488	68
6 - 12	780 J	25	340 J	16
12 - 18	433 J	42	292	18
18 - 24	590	15	Native Sand (NS)	Native Sand (NS)
24 - 30	148	19	Native Sand (NS)	Native Sand (NS)

In this example, excavation in the front yard will go down to 24 inches below grade, because soil in each of the 6-inch sampling horizons exceeds the lead Remedial Action Level (*i.e.*, greater than 400 ppm). (If soil exceeded the Remedial Action Level at only the 18–24-inch horizon, and was clean at every interval above, the entire front yard would *still* be excavated to get at that contamination.) Similarly, only the first 6 inches of soil in the backyard needs to be excavated, because soil contamination below the first 6 inches does not exceed the Remedial Action Levels for either arsenic or lead. Finally, because no soil below 24 inches has contamination above the Remedial Action Levels, no textile barrier or institutional controls are required at this property. The associated RD drawing for this property, included as Attachment A-9, also includes preliminary notes regarding the work, such as what features EPA needs to talk about with the homeowner prior to the excavation work.

30. Remedial Design has been completed for Zone 1 and for all of the properties in Zone 3 that EPA has access to. As described in greater detail in Paragraph 77, Remedial Design efforts are ongoing in Zone 2.

III. EPA'S RESPONSE ACTIVITIES IN ZONES 1, 2, AND 3 FROM MAY 2016 TO THE PRESENT

31. On May 24, 2016, EPA provided the City of East Chicago (the "City") and the East Chicago Housing Authority ("Housing Authority") with the final, validated sampling results for most of the soils of the Housing Complex. The results revealed high levels of lead contamination that were pervasive. Thereafter, the City expressed a significant level of concern over, among other things, the high levels of lead contamination. The City also questioned EPA's ability to implement soil excavation in the Housing Complex without subjecting the Housing Complex residents to further lead exposure.

32. In light of the high levels of lead in the Housing Complex soils, EPA quickly and significantly ramped up its response activities in the Housing Complex in June, and by August, in Zones 2 and 3.

33. At the direction of the Acting Regional Administrator, and in close coordination with senior management at EPA Headquarters, Region 5 commenced immediate efforts to inform the community of steps it could take to minimize exposure to lead and began to deploy EPA staff on-site to address the risks to residents in Zone 1. As the summer progressed, EPA accelerated its efforts to address the contamination at the Site. EPA established an Incident Command and a multi-agency coordination team. In the fall, EPA conducted indoor sampling and cleaning of over 270 residential units and homes and also expedited the remediation of over 50 properties in Zones 2 and 3 this construction season. These activities are detailed below.

34. Suffice it to say, EPA's recent response to the presence of hazardous substances at the Site has been thorough and extensive and few Superfund sites can boast the level of activity seen in East Chicago in the last few months. I have estimated that between June 1, 2016, and December 9, 2016, the EPA has committed over 117,000 workhours (including both EPA personnel and contractor personnel) to carry out the response actions at the Site. This is the equivalent of approximately 110 full time personnel working 5 days a week for those 27 weeks.

A. PUBLIC HEALTH AND INTERIM RISK REDUCTION ACTIVITIES

35. ATSDR. At the end of May, EPA asked the Agency for Toxic Substances and Disease Control ("ATSDR") to provide assistance with respect to public health issues. ATSDR was established under CERCLA to implement the health-related provisions of CERCLA. As such, ATSDR works with EPA at Superfund sites to assess the presence and nature of health hazards, help prevent or reduce exposure and the illnesses that result from such exposures, and expand the knowledge base about health effects from exposure to hazardous substances. Since June, ATSDR has been heavily involved in the public health issues at the Site. The Declaration of Mark Johnson includes details on these efforts.

36. Education and Community Outreach. By the end of June, EPA began implementing interim measures to reduce the risk of exposure to lead-contaminated soil in the Housing Complex.

Key elements in this effort included education and community outreach, such as:

- a. Going door-to-door to provide Housing Complex residents with informational flyers outlining measures they could take to avoid exposure to lead;
- b. Setting up a site trailer staffed by EPA outreach personnel to answer residents' questions; and

- c. Holding meetings and availability sessions with residents to provide Site updates and information regarding health work, school logistics, indoor cleanings, and relocation.

The Declaration of Janet Pope includes details on this aspect of EPA's efforts.

37. Mulching. In addition, starting in early July, EPA placed several thousand cubic yards of mulch in Zone 1 over the course of approximately 2,600 contractor workhours.

- a. Because lead in contaminated soil does not volatilize and remains bound with the soil, exposure occurs only through direct contact with the soil. Grass can serve as a barrier between contaminated soil and residents, interrupting that direct contact chain. By the end of June, EPA and ATSDR had inspected the Housing Complex and determined that there were a number of bare spots throughout. Additionally, they noticed poor or no grass cover immediately adjacent to many of the structures' walls and limited coverage around the base of trees.

- b. To address this exposure, EPA placed triple shredded hardwood mulch down wherever bare spots were identified. EPA also placed mulch at the playground just north of the Housing Complex. In lieu of grass, mulch acts as a barrier to direct contact with contaminated soil.

- c. After completing the mulching in mid-July, EPA crews also periodically surveyed the Housing Complex and maintained or replaced any mulch that had been lost or disturbed. EPA also worked with the City to clear away and replace any mulch that washed away during wet weather events.

- d. EPA monitored and maintained the mulch cover until December 1, 2016, as the change in seasons (bringing snow cover) made continued maintenance unnecessary.

38. Mowing Practices. EPA also discovered that lawn mowers used at the Housing Complex were kicking up contaminated soil whenever they drove over bare patches of dirt. These lawn mowers were also removing mulch that was laid down, increasing the need for maintenance and replacement. EPA worked with the City and the Housing Authority contractors to alter the mowing practices so as to reduce or eliminate the disturbance of dirt and mulch.

B. HOUSING AUTHORITY DECISION TO DEMOLISH HOUSING COMPLEX

39. In early summer, the Housing Authority and the City began holding conversations with the U.S. Department of Housing and Urban Development (“HUD”), which is the federal agency that provides the Housing Authority with the funds to operate and maintain the Housing Complex. On approximately July 21, 2016, the Housing Authority began the process of applying to HUD for permission to demolish the Housing Complex. Then, on approximately July 24, 2016, the Mayor of East Chicago sent a letter to all residents of the Housing Complex advising them that it was in their best interest to relocate in light of lead contamination in the soil. On approximately August 2, 2016, HUD announced that it would approve “Tenant Protection Vouchers” for Housing Complex residents which these residents could use to permanently relocate to anywhere in the United States. Simultaneously, the Housing Authority advised residents that they would have to move out. HUD then issued vouchers in August and they became effective on September 1, 2016. Since then, residents have been moving out of the Housing Complex. I have been advised by HUD that as of December 9, 2016, 97 families have permanently relocated.

40. In early August, the Superintendent of the School City of East Chicago announced the closing of the Carrie Gosch Elementary School. All children enrolled therein were transferred to a different school location.

C. EPA’S DEFERRAL OF THE SOIL CLEANUP AT THE HOUSING COMPLEX

41. At all times EPA has maintained that it is capable of performing the remediation of the Housing Complex soils safely and effectively with residents in place. It had planned to start soil excavation and restoration work in the Housing Complex in August 2016. However, EPA put those plans on hold for several reasons. First, the City and the Housing Authority were opposed to EPA’s proposed remediation activity in the Housing Complex. Therefore, trying to commence cleanup work in the face of opposition by the property owners might well have resulted in a protracted and difficult process to secure access and endangered the positive working relationship that EPA hopes to foster with all local governmental entities. Second, the Housing Complex residents were in the process of being asked to, and were actually being, permanently relocated. Commencing cleanup work at the same time as the start of a permanent relocation effort likely would have caused even more confusion and stress for the residents than they already felt. Third, the City and the Housing Authority had formally requested that the Housing Complex be demolished. Cleaning up soils in the yards of the Housing Complex, therefore, could result in recontamination of those same soils when the Housing Complex is demolished. Finally, the future use of the land that the Housing Complex occupies is unknown. In issuing the cleanup plan for the Calumet neighborhood, EPA—as with all cleanup plans—relied upon the projected future use of the properties within that neighborhood in determining the appropriate cleanup standard. Here, the cleanup plan assumed the continued residential use of the Housing Complex and the cleanup standard was established at “residential” cleanup levels for the Housing Complex. However, at this time, it is not known if the future land use of the Housing Complex will remain residential.

D. EPA'S ORGANIZATIONAL STRUCTURE AT THE SITE

42. In early August, EPA recognized that, while educating residents about yard risks, maintaining mulch barriers, and revising Housing Complex mowing practices could effectively reduce exposure to lead-contaminated soil in the outdoors, the interior of Housing Complex homes might be contaminated with lead due to high levels in the top 6 inches of numerous Housing Complex yards. In addition, EPA recognized that the 1000+ residents of the Housing Complex (approximately 670 of which were under 18 years of age) could not all be permanently relocated within a very short period of time. Therefore, in early August EPA offered to clean the interior of all occupied Housing Complex units if the head of the household wanted their home cleaned. EPA also decided to temporarily house residents in local hotels during the interior cleanings.

1. Incident Command

43. The scope and complexity of EPA activities required scores of EPA employees and contractors at the site. It was also essential to ensure that this work was consistent with the advice of a number of local, state, and federal departments and agencies. To effectively manage resources and coordinate and share information with partner agencies, EPA established an Incident Command system at the Site. That Incident Command was initially housed at EPA trailers in Zone 1 and then moved to the Carrie Gosch Elementary School building in Zone 1 until the week of November 7, 2016, at which point it was demobilized following the completion of the work in Zone 1 for the year. The primary function of the Incident Command was to facilitate EPA's Zone 1 efforts related to (a) providing information to the public, both about EPA's activities at the Site and the steps residents can take to protect themselves from exposure to lead; (b) implementing EPA's indoor sampling dust and interior cleaning program at the Housing Complex; and (c) temporarily relocating residents affected by that indoor sampling and cleaning program to nearby

hotels. However, to varying degrees, all activities at the Site, including remedial work in Zones 2 and 3 and site-wide air monitoring, were staged, organized, or routed through the Incident Command. The Incident Commander for the Site was Jim Mitchell.

44. Jim Mitchell is currently an On-Scene Coordinator (“OSC”) with EPA, and has held that position since 2001. As an OSC, Mr. Mitchell is responsible for managing EPA response efforts at sites under emergency and time-critical conditions. Mr. Mitchell has been the OSC at over 30 sites. In the last 15 years, Mr. Mitchell has also acted as incident commander at a number of other sites, directing EPA response activities at oil spill cleanups and terrorism exercises. Mr. Mitchell also served as an Emergency Response Branch Manager during the Hurricane Katrina Response—where he was responsible for overseeing the response to landfill fires and natural gas explosions—and an Emergency Response Manager during the Columbia Shuttle Response—where he was part of the team that addressed hazardous materials associated with shuttle debris. Before becoming an OSC, Mr. Mitchell was a Health Physicist with EPA starting in 1990. As a Health Physicist, he provided technical support at Superfund radiation sites, including at United States Department of Energy legacy contamination sites requiring hundreds of millions dollars in remediation. Mr. Mitchell has been named Federal On-Scene Coordinator of the Year, is a two-time EPA National Notable Achievement Award recipient, and has received numerous technical awards from EPA’s Office of Research and Development and Office of Emergency Management. Mr. Mitchell earned his bachelor degree in biology and natural science from St. Mary’s University (1984) and has been certified by the Nuclear Medicine Technology Certification Board (1985).

45. The Incident Command offered a centralized vehicle through which the various parts of EPA maintained constant communication with one another. As related to the Zone 1 work alone, an Operations Division (including Sampling and Relocation Branches), Planning Division,

Finance Division, Logistics Division, and safety officer all reported to Mr. Mitchell, who also had the support of EPA public affairs officers and attorneys. From August through October, the Incident Command held daily internal calls with all components of the Incident Command and EPA management, so that they could update each other on their work, discuss problems at the Site, and coordinate resources. The Incident Command also held daily calls with EPA's Office of Land and Emergency Management in Washington, D.C., updating Superfund upper-management on work, progress, and problems at the Site. Regular updates from the Incident Command often came in the form of situational reports, or "SitReps," which documented recent activities at the Site and various performance metrics. One such SitRep from November 2, 2016—which also includes an organizational chart of the Incident Command—has been included as Attachment A-10.

46. EPA Region 5 has used the Incident Command structure to great success at a number of different sites where EPA is responsible for coordinating large scale responses, including while addressing the Enbridge oil spill in Kalamazoo, Michigan, and the Flint Drinking Water Response in Flint, Michigan. However, although all responses are different, the Incident Command at the USS Lead Site was unique. Most Incident Commands operate where there has been a release of hazardous substances and there is a clear party responsible for doing the work. Under those circumstances, EPA is in an authoritative position to dictate activities and responsibilities to outside parties. Other than for the purposes of community outreach, EPA personnel generally have more limited direct interactions with the community.

47. The Incident Command at the USS Lead Site, however, could better be described as a "service response center" because the Incident Command was not in a position of power over the outside parties it interacted with. On the contrary, central to the operations of the Incident Command was responsiveness to the daily and ongoing needs of residents. Specifically, personnel

at the Incident Command worked every day with residents to explain EPA's activities at the Site as they related to that resident's health and home. During interior sampling, cleaning, and relocation, EPA personnel were responsible for scheduling interviews and cleanings and relocations with residents. They were also responsible for meeting with residents to coordinate the logistics of packing, transportation, and other personal services necessary to maintain daily continuity. More so than at many sites, EPA's work at the USS Lead Site requires it to be directly reactive and responsive to the physical and emotional needs of the community it interacts with.

2. Agency Partnerships

48. Typically, the Incident Command structure also integrates a number of partner entities into a unified command structure, as necessary to coordinate response activities. Entities are incorporated in a unified command structure when they are responsible for providing resources, have specific jurisdiction to handle components of a response, or when they have authority in the area of the response. Because EPA is largely responsible for the response activities at the Site, a unified command structure has not been implemented. That said, numerous entities, including the City of East Chicago, the Housing Authority, the Indiana State Department of Health ("ISDH"), the Indiana Department of Environmental Management ("IDEM"), ATSDR, and HUD, are also very actively involved at the Site. Liaison officers within the Incident Command were responsible for coordinating with these various governmental entities and all parties exchanged and still exchange (although no longer through Incident Command) information on a regular basis. This was especially important for sharing information related to the temporary relocation and interior cleaning work at the Housing Complex (further detailed in Part II.F) by and between EPA, HUD, the City, and the Housing Authority. That said, EPA liaisons also coordinated various activities with these outside parties, including the placement of six high-volume air samplers on City-

affiliated property throughout the Site and the excavation and management of contaminated soils exposed during maintenance of the City's infrastructure (*e.g.*, water mains).

3. Multi-Agency Coordination Team

49. Finally, EPA has also established a Multi-Agency Coordination Team ("MACT") to facilitate coordination between the different local, state, and federal departments and agencies involved at the Site, particularly as they have a stake in and work to support various health related issues. Parties involved on the weekly MACT calls have included: EPA, ATSDR, ISDH, the Housing Authority, the City, the East Chicago Health Department, the Indiana Family Social Service Administration, the Regional Mental Health Center, the North Township Trustees, the U.S. Department of Agriculture ("USDA"), the U.S. Department of Health and Human Services ("HHS"), the Centers for Disease Control and Prevention ("CDC"), Purdue University, and the University of Illinois at Chicago ("UIC"). Although these parties are of course free to communicate between themselves outside of this organizational structure, the MACT ensures that on at least a weekly basis all of the participating parties have the opportunity to update each other on their work and see if there are any areas of conflict or overlap that need to be resolved. For example, the MACT coordinates health education and outreach, as well as blood sampling drives at the Site. The MACT is also addressing the case management needs of children who have tested with elevated blood lead levels and the coordination of the transfer of case management to other different authorities as residents of the Housing Complex relocate. Decisions made during weekly MACT calls are further refined during additional implementation calls during the week. Although EPA has demobilized the Incident Command for the year, the MACT continues to meet on a regular basis.

E. INDOOR SAMPLING

1. Zone 1

50. With residents' permission, EPA decided to collect and analyze indoor dust within the interior of Housing Complex units to determine lead and arsenic concentrations. In order to conduct this task, EPA developed a detailed sampling plan that was updated over time as EPA learned more information from the actual sampling process. The sampling plan now is over 200 pages long and includes a number of standard operating procedures.

51. A simplified description of the indoor sampling that took place within the Housing Complex is as follows:

a. EPA Vacuum Sampling. EPA took up to five indoor vacuum samples from discrete areas of the interior of a unit (*e.g.*, living room, bedroom, and entrances). Vacuum samples were collected using vacuums with filter attachments. Each sample—collected using these filters—was analyzed for different-sized lead and arsenic particles in the dust (*i.e.*, the “fine fraction” and the “coarse fraction”). The analysis measured the mass of dust in each fraction and the lead and arsenic concentrations in each fraction. For the fine fraction of lead in each sample, EPA also calculated the lead dust loading using the dust mass and lead concentration in that fraction, together with the surface area vacuumed.

b. ISDH Lead-Based Paint Sampling. In advance of the sampling, the Housing Authority had advised EPA that the Housing Authority had remediated all lead-based paint (“LBP”) in the complex. Nevertheless, EPA elected to confirm that through screening. Therefore, EPA worked with the Indiana State Department of Health (“ISDH”). ISDH crews, unlike EPA crews, are certified to inspect for LBP. ISDH crews employed the following techniques to detect LBP:

i. Wipe Sampling. ISDH took wipe samples on hard surfaces.

ii. XRF Screening. ISDH also used XRF screenings to determine whether LBP was present in the home. Unlike vacuum and wipe sampling, XRF screenings can detect lead in intact paint still on the walls: XRF screenings do not require lead flakes or dust to be present. ISDH performed XRF screenings on paint in various locations in the homes they sampled (*e.g.*, living room, bedroom, etc.), and where paint and construction materials were not uniform with the rest of the home.

52. ISDH sampled 28 units within the Housing Complex. Through their inspections, ISDH concluded that no LBP was present in the Housing Complex. Thereafter, EPA independently collected XRF data from an additional 207 Housing Complex residences. Although EPA inspectors are not specifically certified in LBP inspections, EPA's view, based on its 207 XRF screenings and discussions with the Housing Authority, is consistent with ISDH's conclusion: there is no LBP in the Housing Complex.

53. Summary. For three months (between July 29, 2016 and October 31, 2016) and more than 2,400 contractor workhours, EPA collected indoor vacuum dust samples at approximately 270 units within the Housing Complex. At any given time, EPA utilized 1 to 2 sampling crews, each of which was comprised of between 3 and 5 people. Personnel on the crews included employees of EPA, EPA contractors, ISDH, and ATSDR.

2. Zones 2 and 3

54. Screening Levels. For Zones 2 and 3, EPA developed site-specific screening levels to determine if lead-contaminated or arsenic-contaminated indoor dust presented a potential health threat. EPA Region 5 consulted with other EPA regions, the EPA Technical Review Workgroup for Metals and Asbestos, and ATSDR in the development of the methods for determining the screening levels. EPA determined that levels at or above 316 mg/kg for lead and at or above 26 mg/kg for arsenic would trigger the need for indoor cleaning. Memoranda from EPA's toxicologist

explaining those determinations for lead and arsenic are included as Attachments A-11 and A-12, respectively.

55. Sampling. EPA offered indoor dust sampling to the residents of all Zone 2 and Zone 3 properties where exterior soil remediation happened during the 2016 construction season. (See Parts III.G and III.H for a discussion of the Zone 2 and 3 soil remediation work.) EPA then conducted indoor sampling at each of these homes when the residents granted EPA permission to do so. EPA also conducted indoor dust sampling at a limited number of other Zone 2 and 3 properties upon the request of the residents. In total, as of December 9, 2016, EPA has undertaken indoor dust sampling at 24 residences/properties in Zone 2 (15 apartments, 3 home-based day cares, and 6 single family homes) and 36 homes/apartments in Zone 3. EPA has offered or will offer indoor cleaning to the residents of any homes that had their soils remediated this fall and had indoor dust sampling results that exceeded or will exceed (upon validation of all sampling results) EPA's site-specific indoor dust screening levels.

F. INDOOR CLEANING AND TEMPORARY RELOCATION TO HOTELS

1. Zone 1

56. Outreach to Housing Complex Residents. Residents at the West Calumet Housing Complex were actively contacted by an EPA canvassing team to determine if they were interested in having the interior of their units cleaned. Residents who sought out EPA in EPA's Site trailers or, later, at the Carrie Gosch School, were also asked if they were interested in a cleaning and had their pre-cleaning interviews scheduled at that time (or even performed, time permitting). Additionally, EPA maintained a phone hotline at the Site that was open from 8:00 am to 6:00 pm, through which residents could also express interest in a cleaning and work to schedule their pre-

cleaning interview. Finally, EPA reached out to residents at other events, such as informational open houses held by EPA.

57. Prioritization. EPA created a prioritization list for pre-cleaning interviews and interior cleaning of units in consultation with ATSDR and EPA's risk assessors. ATSDR advised EPA that populations sensitive to lead, in order of decreasing priority, are: (a) pregnant women; (b) children ages 2 years and under; (c) children ages 5 years and under who have been tested with blood lead levels over 5 micrograms/deciliter ($\mu\text{g}/\text{dL}$); and (d) children ages 5 years and under. EPA attempted to contact and perform interior cleanings at the Housing Complex with sensitive populations as soon as possible. That said, EPA scheduled pre-cleaning interviews with residents regardless of their priority status and scheduled interior cleanings of non-priority residences to maintain a constant workload for the up to 12 crews that, at any one time, were doing interior cleanings. Although EPA began with a list of roughly 60 priority units for cleaning, EPA continuously gathered additional information from residents (*e.g.*, a new pregnancy), qualifying them for priority status. In addition, ATSDR provided EPA with updated priority properties, as blood lead sampling results and other information became available to them. By the end of the process, the priority list included 186 units.

58. Temporary Relocation Determination. In advance of commencing any cleaning, EPA decided that it would offer to temporarily relocate Housing Complex residents to nearby hotels during the unit cleanings. EPA made that decision because of the scope and intrusiveness of the indoor cleanings and because of the large size (4 and 5 bedrooms) of many of the Housing Complex units. EPA's 80-page Temporary Relocation Operations Plan is included as Attachment A-13.

59. Pre-Cleaning Interviews. EPA undertook pre-cleaning interviews with residents prior to moving forward with cleaning and temporary relocation. The purpose of these interviews was to explain the scope of the temporary relocation program; to obtain access for EPA crews to clean the units; to assign a case manager, and to help residents complete the necessary forms. Interviews also allowed EPA to get to know the residents, provide them with additional information, and further guide them through the process. Interviews took anywhere from 30 minutes to 2 hours to conduct, depending on the number of questions residents had about the process and the number of forms that needed to be completed. Interviews also provided residents with a forum to discuss any concerns they had about the process with EPA, allowing EPA to address them to the extent possible. Residents were also provided with contact information for their case manager and other EPA personnel, to use as points of contact during the relocation process. Some of the forms reviewed and completed during this process included:

- a. Cleaning Access Agreement. Residents were required to sign this form to give EPA access to their property for the cleaning.
- b. Temporary Relocation Agreement. This form gave EPA authority to relocate the residents. This form also generally outlined what bills the residents needed to continue to pay during relocation and the rules and guidelines that the residents agreed to comply with, including the hotel/motel rules.
- c. School Transportation Form. Many families being relocated had school-aged children and the hotels they were staying in were often located a distance from the schools. As part of the relocation process, EPA provided taxi services for children (accompanied by an adult) to get to and from school. If parents wanted to drive the children to school

themselves, or use other modes of public transportation, EPA offered to reimburse those parents for their related costs.

d. Per Diem, Incidentals, and Debit Card Forms. While residents were temporarily relocated, EPA provided them with a per diem for meals and incidental costs. The total per diem was provided up front to residents at the time of the move-out, in the form of a pre-paid debit card, and was calculated based on the number of adults and children in the unit. Residents were also given a fixed \$50 lump sum at the end of the cleaning process to cover any utilities used by EPA during the cleaning, also through the same debit card.

e. Hotel Rules. Approximately 80% of residents interviewed reported that they had never spent time in a hotel before. As such, EPA explained to residents the various rules that they would have to abide by while staying at their hotels.

f. Packing Instructions. EPA provided residents with boxes and packing supplies prior to their relocation. EPA also advised residents on what items it recommended they bring with them to their hotel and how any boxes brought with them would be transported (if residents did not have their own vehicle for transport). EPA also advised residents to pack personal belongings that they did not want disturbed during the cleaning in boxes marked "PERSONAL."

60. Pre-Cleaning Walkthrough. On the day of the relocation, EPA met with residents at their units to conduct a walkthrough of their units. During this walkthrough, EPA documented—in writing, with video, and with pictures—the condition of the unit prior to the cleaning (*e.g.*, testing stoves, electronics, *etc.*), paying particular attention to high value items and pre-existing damage. Residents could also discuss any possible complications prior to the work. Once EPA and the

resident came to an understanding regarding the scope of any pre-existing damage, EPA could begin the cleaning.

61. Scope of Full Cleaning. EPA's cleaning included: HEPA vacuuming of the property; steam cleaning (depending on item condition) of existing carpets and rugs, upholstery, and drapes; wiping down all horizontal and vertical surfaces (*e.g.*, table tops, kitchen counters, walls, and floors); cleaning out accessible air ducts, vents, and HVAC systems; cleaning or replacing air filters; wiping down ceiling fans; moving heavy furniture as necessary to effectuate the cleaning; and wiping down toys and bikes. Although EPA did attempt to clean closet floors, EPA did not open drawers, cabinets, or other private spaces. EPA documented each cleaning as it was ongoing.

62. Scope of "Belongings-Only" Cleaning. EPA also maintained a cleanup crew capable of doing quick cleanings for residents with imminent plans to permanently relocate or who preferred not to be relocated. In these circumstances, EPA would clean only the residents' belongings, not the unit itself. Because of the limited scope of the cleaning, EPA planned for these cleanings to take no more than a day and did not include the residents in the hotel relocation process. Quick cleanings were documented in the same manner as discussed above. Ultimately, only 3 quick cleanings were performed.

63. Guards Stationed to Protect Units. For residents who were temporarily relocated to hotels, EPA posted a guard at the unit when the cleaning crew was not present.

64. Post-Cleaning Inspection. Upon completion of the indoor cleaning, EPA conducted a visual inspection of the unit to determine whether the cleaning was effective and dust was removed. This was consistent with HUD requirements for properties following lead abatement work (which, unlike EPA's work at the Site, actively generates dust). However, beyond what was required under HUD guidelines, EPA also conducted post-cleaning confirmatory sampling in approximately 12%

(34/270) of the units cleaned, both to confirm that cleaning at that property was effective, and generally to confirm that EPA methods used at all properties were effective. Indoor cleaning is considered effective if the lead loading present after the cleaning is at or below 25 $\mu\text{g}/\text{ft}^2$ for floors. This standard is consistent with EPA's World Trade Center Indoor Environment Assessment standard. If the cleaning were to fail to achieve that level of effectiveness, EPA would re-clean the unit. EPA did not have to re-clean any Housing Complex units.

65. Post-Cleaning Walkthrough with Resident. On the day residents moved back into their unit, EPA again walked through the unit with the resident, documenting, as before, the condition of the unit. If any personal property was damaged during the cleaning, EPA made arrangements with the resident to replace the item or reimburse the resident for its value. Once the resident was satisfied that their unit was in the same condition after the cleaning as before (but cleaner), they signed a closeout form, completing the process.

66. Hotels. During unit cleanings, residents were housed in the nearby Econo Lodge, Hampton Inn, or Fairfield Inn, depending on their choice. EPA accompanied (and often transported) residents to their hotels. EPA was responsible for checking residents in (because EPA was paying for the accommodations). EPA also documented the condition of the hotel rooms being used by the residents immediately prior to check in and check out. This was both to ensure that the hotel room was consistent with the needs of the resident (*i.e.*, clean, in good condition, with the correct bed count, *etc.*), and to determine what, if any, damage was pre-existing. To the extent possible, EPA also checked residents out of their hotels once their units had been cleaned, and if necessary, provided them with transportation back to the Housing Complex.

67. Transportation Services. EPA also provided residents with a number of transportation services during the period of their relocation, in addition to the school transportation services

mentioned above. Specifically, EPA provided residents with taxi transportation for any purpose reasonably related with their day-to-day needs. For example, EPA provided transport to: work; doctors' appointments and hospitals; permanent relocation housing interviews with the Housing Authority; and grocery stores. These transportation costs were not taken out of residents' per diem, but instead paid by EPA directly. In order to ensure that transportation was for authorized purposes only, EPA handled all logistics related to the transportation, and scheduled the transportation to the exact location.

68. Pet Services. Kennel services were made available to residents but all residents either housed their pets with family friends or relatives, or brought them with them to the pet-friendly Econo Lodge. At the request of residents, EPA crews also fed pet fish left in units.

69. Disability Needs. EPA did everything in its power to meet the needs of residents and minimize to the extent possible the disruption of their lives. A number of residents, including one school-aged child, required wheel chair access to their hotels and transportation that accommodated persons with disabilities.

70. Summary. Between approximately August 12, 2016 and November 5, 2016, EPA cleaned 270 units at the Housing Complex and temporarily relocated residents in 267 of those units to hotels. No Housing Complex resident who expressed an interest in indoor cleaning and temporary relocation failed to have their interest met. At the peak of operations, EPA had approximately 60 people working to relocate residents and 12 separate crews working to clean their homes. Over 15,500 contractor workhours went into relocating the residents and another 24,500 contractor workhours into cleaning their homes.

2. Zones 2 and 3

71. For Zones 2 and 3, EPA offered to clean the interior of homes where indoor sampling results met or exceeded the lead and arsenic screening levels of 316 mg/kg and 26 mg/kg, respectively. Of the 60 properties sampled (including apartments, homes, and home-based day cares), 31 properties (14 in Zone 2 and 17 in Zone 3) met or exceeded those levels.

72. For indoor cleanings in Zones 2 and 3, EPA is not temporarily relocating Zone 2 and 3 residents. Therefore, the procedures described above for temporary relocation are not applicable in Zones 2 and 3. In general, EPA has so far followed similar procedures for indoor cleaning in Zones 2 and 3 as it did in Zone 1. EPA held pre-cleaning interviews with the residents where, among other things, it secured access for the purpose of the cleaning and provided packing materials for personal items. *See* Paragraph 59. It did a walkthrough of the home carefully documenting conditions. *See* Paragraph 60. It performed a thorough cleaning of the home, *see* Paragraph 61, except that unlike in the Housing Complex, EPA is not moving heavy items (sofas, refrigerators, beds, etc.) and is not cleaning walls and drapes (although it is still cleaning accessible vertical surfaces of appliances and cabinetry); however, EPA is often cleaning basements (which the Housing Complex did not have). EPA did a post-cleaning inspection and a post-cleaning walkthrough with the residents. *See* Paragraphs 64–65.

73. In Zone 2, as of December 9, 2016, out of the 14 properties that had soil remediated this fall and indoor dust that exceeded screening levels, EPA completed interior cleanings in 5 of them: 2 home-based day cares and 3 homes/apartments. (Interior sampling was performed at a third home-based day care in Zone 2, but results indicated that interior cleaning was unnecessary.) For 8 of the 9 remaining properties, EPA has scheduled interior cleanings for completion this month

and will schedule the interior cleaning of the final property this month as well, pending the property owner's communication with EPA.

74. In Zone 3, as of December 9, 2016, out of the 17 properties that had soil remediated this fall and indoor dust that exceeded screening levels, EPA has completed interior cleanings in 4 of them and has a fifth one scheduled in December. EPA plans to complete interior cleanings at the remaining 12 properties in the first quarter of 2017.

75. The interior cleanings in Zones 1 and 3, like those in Zone 2, are being funded out of EPA's funds. EPA elected to limit the use of the Consent Decree funding to outdoor remedial activities, consistent with the Record of Decision.

G. COMPLETION OF ZONE 3 REMEDIAL DESIGN AND COMMENCEMENT OF ZONE 2 REMEDIAL DESIGN

76. Zone 3 Remedial Design. As noted above, EPA elected to defer cleanup of the soils at the West Calumet Housing Complex (Zone 1) in light of the Housing Authority decision to permanently relocate the Housing Complex residents and demolish the Housing Complex. Therefore, in August, EPA expedited completion of the Remedial Design process for Zone 3 for the purpose of commencing soil excavation and restoration work there for what remained of the 2016 construction season. The RD sampling and design drawing process for Zone 3 is fully described in Part II.B above. It was undertaken pursuant to the Consent Decree. For the period from June through November 2016, EPA committed approximately 3000 contractor workhours to RD activities. (This figure includes work in both Zones 1 and 3 because RD activities in Zone 1 continued in June and July and because all of the Zone 1 and 3 work is under the same work assignment).

77. Zone 2 Remedial Design. Likewise, in August, using its own funding, EPA elected to commence Remedial Design sampling and design drawings in Zone 2 for the purpose of

commencing soil excavation and restoration work during what remained of the 2016 construction season. The RD sampling that has taken place in Zone 2 is consistent with the descriptions set forth in Part II.B above, except that all samples are being sent to a laboratory for analysis. As of December 9, 2016, EPA has secured access to approximately 500 out of 596 properties in Zone 2 for RD sampling and has completed RD sampling for approximately 485 of those properties where access was granted. This is a very significant achievement in a very short period of time. For the period from August through November, EPA committed approximately 3000 contractor workhours to these Zone 2 RD activities.

H. EXTERIOR SOIL REMEDIATION AND RESTORATION IN ZONES 2 AND 3

1. Prioritization

78. Need for Prioritization. Based on Remedial Design sampling results, EPA was aware in August and September of this year that many more yards in Zones 2 and 3 had lead and/or arsenic contamination in excess of Remedial Action Levels than EPA could remediate within the remaining construction season in 2016. Therefore, EPA had to prioritize the properties it would clean up this fall (while recognizing that it would remediate, as quickly as possible, all properties where the lead and/or arsenic contamination exceeded the remedial action levels).

79. Remedial Standards v. Removal Action Standards. For purposes of prioritization, EPA has well-established lead and arsenic trigger levels for what Superfund refers to as “removal actions.” To simplify, a “removal action” is a cleanup or “removal” of released hazardous substances that is expected to be undertaken relatively quickly after a determination that a cleanup is necessary. For removal action purposes, lead of 1200 ppm or greater and arsenic of 68 ppm or greater in the top 6 inches of soil are the trigger levels (compared to, as we have seen, 400 ppm for lead and 26 ppm

for arsenic—without regard to soil depth—for remedial action trigger levels). These removal action trigger levels have generally been used throughout the country to prioritize cleanup work.

80. Because, in advance of or during its Zone 3 excavation work, EPA was able to complete most Remedial Design sampling at all Zone 3 properties where it had access, EPA was able to determine the full scope of Zone 3 properties that met or exceeded the removal action triggers: 37. EPA aggressively planned to—and in fact did—clean up all such properties before the end of the 2016 construction season (save one, where the homeowner chose to defer cleanup to 2017). Therefore, EPA did not need to undertake any further prioritization of Zone 3 properties for this fall's cleanup work. At the request of the City, EPA also targeted for cleaning—and also in fact cleaned—Riley Park this fall.

81. Because EPA did not begin remedial design sampling in Zone 2 until August 2016, EPA had to determine the Zone 2 properties to prioritize for soil remediation on a rolling basis, as EPA generated sampling data and became aware of sensitive populations. Specifically, EPA targeted—and in fact remediated—17 properties. 14 of those properties (including single-family homes and apartment buildings) were prioritized based on the soil contamination present in the top 6 inches. The remaining 3 properties were prioritized because they were each a home-based day care, with up to 12 children being served.

2. Planning

82. Before any excavation work can begin at any property, EPA and its contractors must produce a series of planning documents that will outline the scope of the cleanup and the manner in which it will be performed. For example, documents required under the Consent Decree for work in Zone 1 (now postponed) and Zone 3 include:

- a. Data Management Plan. This plan sets forth the procedures for storing, handling, accessing, and securing the data collected during the Zones 1 and 3 Remedial Design Sampling.
- b. Site Management Plan. This plan describes how EPA will gain access to, secure equipment, and manage wastes generated during the excavation. It also contains contingency procedures and management responsibilities.
- c. Sampling and Analysis Plan. This plan includes the Field Sampling Plan and Quality Assurance Project Plan.
 - i. Field Sampling Plan. This plan describes the number, type, and locations of samples; the method of sample analysis; and collection and documentation procedures.
 - ii. Quality Assurance Project Plan. This plan describes the procedures necessary to obtain accurate data during Remedial Design, and to ensure that EPA has properly removed contaminated soils during the actual excavation.

This Sampling and Analysis Plan also includes standard operating procedures for the development of data quality objectives, the collection of environmental samples, chain-of-custody documentation, field screening activities, ambient air monitoring, field equipment decontamination, and data validation.

- d. Health and Safety Plan. This plan establishes the minimum health and safety requirements and procedures for all environmental activities conducted at the Site. This plan specifies specific employee training, protective equipment, medical surveillance requirements, standard operating procedures, and contains a related contingency plan. To that end, this plan addresses: safety management, traffic management, accident

management, personnel responsibilities, hazard assessment, communications, personnel exposure and air quality monitoring, personal protective equipment, training and medical surveillance, contamination reduction procedures, general work precautions, sanitary facilities, and fire control equipment.

e. Remedial Action Work Plan. This plan specifies the necessary procedures, inspections, and deliverables; contains a schedule for completion of each required activity and deliverable; and contains a list of key contractor personnel who will provide support on the work assignment.

f. Transportation and Disposal Plan. This plan describes the mode of transport of contaminated materials; the management of contaminated materials; the manner of transport of contaminated materials; and the facility and process used for the treatment or disposal of contaminated materials.

Similar plans were required during the 2016 removal actions in Zone 2.

3. Access and Pre-Excavation Walkthrough

83. Before excavation work can begin at a specific property, EPA must schedule and conduct a property walkthrough with the homeowner (not the resident). During this walkthrough, EPA explains the remedial process to the homeowner (and, if there is a difference, to the actual resident), as well as the scope of work required at their property and how that work might affect their daily lives (*e.g.*, how residents will be able to access and live in their property during the excavation). In addition, EPA secures an access agreement from the homeowner.

84. Further, when EPA does the walkthrough with the homeowner, EPA works with the homeowner to determine what yard fixtures can be removed during the remediation. For example, small trees or bushes are often an impediment to remedial work and the homeowner can allow

EPA to remove those trees and replace them upon the completion of the work. The walkthrough is also an opportunity for the homeowner to discuss any issues or problems with the house that may come up during the work. EPA also uses the walkthrough to document with pictures and videos the condition of the property prior to work, both so that EPA can determine whether its work is the source of any damage that may appear after the work has been completed and also so that EPA can accurately restore the property to its pre-remedial condition (as discussed in further detail in Paragraphs 93–94).

4. Excavation

85. Excavation of the contaminated soil is performed consistent with the remedial design for the property. Excavation depths are determined through the use of survey methods, unless EPA first runs into clean, native sand, in which case EPA stops digging. Except as described in Paragraph 86, excavation occurs to a maximum depth of 24 inches below grade. Heavy equipment is used where possible to dig the soil. However, at all properties, some hand digging is required. Hand digging is necessary when the use of heavy equipment is too imprecise or may cause structural damage, and when there are barriers to its use, including:

- a. Around utilities. Soil around utility lines must be dug up by hand so as not to damage those lines.
- b. Around foundations and hardscape. Hand digging must be used for soils near the walls and fences of a house, as well as around other buildings such as sheds and garages, so as to avoid structural and foundational damage. Hand digging is also used around streets, sidewalks, and other concrete pads (*e.g.*, air conditioning pads, patios) to ensure that those structures do not collapse due to the removal of supporting soil.

c. Around permanent vegetation. If certain trees and/or bushes are not being removed during the excavation, EPA will hand dig around their bases and around their root systems, typically to a depth of 6 to 12 inches. Because these root systems are difficult to remove, they serve as a barrier to any contamination beneath them. Further, any space taken up by root is space not taken up by contaminated soil, also reducing the risk of exposure.

86. Completing the Excavation. At the end of excavation, EPA confirms that it has dug to the appropriate depth set forth in the Remedial Design drawing again through the use of survey methods. However, for some properties in Zones 2 and 3 that it remediated this fall, EPA excavated below the original Remedial Design cut lines. This usually occurred for one of two reasons. First, for some properties, soil probes used during Remedial Design sampling had struck something (*e.g.*, bricks) that did not allow the probes to collect soil samples (this was and is called “refusal”), and therefore the RD drawings had limited the excavation depth to the point of “refusal.” By contrast, in the field, after EPA had excavated to the original cut lines, EPA could sample deeper. If that sampling resulted in contamination above the remedial action levels, EPA would excavate it. Second, at some properties, EPA excavated below 24 inches below grade because it believed that, for those properties, it would be less costly and more efficient to remove the remaining contaminated soil than to implement and maintain institutional controls.

5. Use of Dust Suppression Practices

87. At all times, EPA employs techniques to prevent contaminated soil from becoming airborne. To that end, EPA may, as necessary, wet down soil during excavation work. EPA may also lay down fabric at the worksite to catch any soil dropped during excavation. Then, if any contaminated soil does fall beyond any such protections, EPA immediately sweeps up that soil.

Ultimately, all contaminated soil removed from the ground is loaded into dedicated trucks and transported away from the worksite.

6. Worksite Air Monitoring

88. PM Air Monitoring. In order to ensure that contaminated soil that does become airborne does not pose a threat, EPA employs two air monitoring devices at each excavation worksite. These air monitors continuously measure in real-time the amount of particulate matter (“PM” or “dust”) in the air. PM itself—and not just the lead or arsenic adhering to the PM—has adverse health effects, as described in Dr. Johnson’s Declaration. The first PM air monitoring device is located next to the ongoing excavation work. The second PM air monitoring device is located near the primary entrance of the residence. This arrangement allows EPA to monitor the amount of dust at the excavation site, as well as dust near the entrance to the residence so that unsafe levels never go inside, regardless of whether that dust is generated by EPA work or by other sources.

89. PM Air Monitor Trigger Level. To monitor for unsafe PM levels, EPA has generally established a trigger level of $150 \mu\text{g}/\text{m}^3$ at Superfund sites across the country. Therefore, EPA uses that trigger level for work in Zones 2 and 3. In addition, for Zones 2 and 3, EPA has determined that the $150 \mu\text{g}/\text{m}^3$ PM trigger level also protects residents and workers from unsafe levels of lead and arsenic. EPA made this determination based on an assumption that the lead and arsenic concentrations within dust (*i.e.*, PM) were equal to the *maximum* concentrations of lead and arsenic found in the Zone 3 soil. EPA then determined that PM could reach a level of $326 \mu\text{g}/\text{m}^3$ in the air and still not present an unsafe level of lead and it could reach a level of $941 \mu\text{g}/\text{m}^3$ in the air and still not present an unsafe level of arsenic. Because the trigger level for PM itself ($150 \mu\text{g}/\text{m}^3$) is lower than both of these numbers, the PM trigger level alone is sufficient to protect against dust-

borne lead and arsenic. The calculations associated with these determinations are presented in Attachment A-14.

90. Actions to Reduce PM Levels. If PM detected during work exceeds $150 \mu\text{g}/\text{m}^3$, EPA employs dust suppression techniques (*e.g.*, wetting the soil) to reduce that count. If dust suppression techniques are ineffective to reduce the amount of dust, EPA stops work until safe dust levels can be achieved. Indeed, an alarm will sound if PM levels reach $100 \mu\text{g}/\text{m}^3$. During the remediation work this fall, the alarm sounded only for reasons unrelated to dust from the excavation work: rain events and diesel exhaust from the excavation equipment.

91. Air Monitoring for OSHA and NIOSH Compliance Purposes. EPA also employs two air sampling devices at each worksite that are not for the purpose of immediate and contemporaneous measurement of ambient air quality but rather to ensure compliance with OSHA and NIOSH worker safety requirements. These air sampling devices collect samples that are then sent to a laboratory for analysis of lead and arsenic concentrations. These air samplers are co-located with the PM air monitoring devices described above. In association with the excavation work this fall, sampling results have been two orders of magnitude below the permissible limit.

92. Personal Air Monitoring Device. Finally, the worker with the greatest risk of exposure to lead and arsenic generally wears a personal air monitoring device. This device never registered any levels of concern during the fall work.

7. Clean Fill and Restoration

93. Clean Fill. Once excavation is complete, EPA replaces the contaminated soil with clean fill that it has purchased. Clean fill is sampled every thousand cubic yards for a full suite of contaminants to ensure that EPA is not replacing contaminated soil with more contaminated soil. After putting the clean fill in place, EPA compacts it to appropriate specifications to ensure that

the fill does not later settle (*i.e.*, shift in place or sink in). The final 6 inches of replacement soil consists of top soil.

94. Restoration. Once the clean fill and top soil are in place, EPA restores the property to the same condition—or better than—it was in prior to the remedial work. EPA will re-sod the yard. EPA will also replace any bushes, trees, flowers beds, and brickwork removed during excavation.

95. EPA documents the final condition of a yard and compares it to documentation taken before work began. EPA then waters the sod for 30 days (or longer, depending on the weather) after the end of construction, and instructs residents as to the care of their yard, at which time the homeowner again assumes full responsibility for their yard.

8. Final Walkthrough

96. At the end of the 30-day period, EPA takes the homeowner on a walkthrough of the property to confirm that the property has been restored to their satisfaction. If so, the homeowner completes a closeout form so stating. As soon as practicable, EPA then also provides the homeowner with a letter containing an as-built design for their property. The as-built design contains all of the details of EPA's remedial work—such as the actual depths excavated, and any features left in place—for the homeowner's future reference.

97. As of December 9, 2016, EPA has received 23 satisfaction surveys from Zone 2 and 3 residents out of the 54 properties that were remediated (the “54” number excludes Riley Park). EPA received an average rating of 9.7/10 and several residents wrote comments specifically praising EPA for the quality of the work performed. Those surveys (redacted for personally identifiable information) are compiled in Attachment A-15. EPA is currently working to collect and process survey results from the remaining residents.

9. Transportation and Disposal of Contaminated Soil

98. Dedicated Trucks. Once contaminated soil has been excavated from a property, that soil is loaded onto trucks dedicated to the transport of contaminated material. Contaminated soil is wetted as necessary to prevent the creation of dust. The trucks also have tarps placed across them to prevent any dust from escaping during transport. The trucks then transport the contaminated soil from the work area to a staging area.

99. Chemours' Property as Staging Area. Contaminated soil is not taken directly from each property to a landfill because the quantities of soil from any given yard are insufficient to fill up the large trucks that transport materials to a landfill. Instead, to avoid the need to maintain roll-off boxes or extremely large trucks in the neighborhoods, EPA uses smaller trucks to transport the contaminated soils to a staging area located on a property owned by Chemours (a successor to Defendant DuPont), which is located immediately to the south of the residential areas of the Site. Contaminated soil is held there until enough volume is collected to cost-effectively transport the soil to a disposal facility. EPA and Chemours have consulted with each other to ensure that the management of the contaminated soil at the Chemours' property complies with all RCRA requirements. For example:

- a. Contaminated soil at the Chemours property is placed on concrete pads, not directly on the ground. These concrete pads are surrounded by straw bales or wattles to prevent run off during wet weather events.
- b. Waste piles never exceed 20 feet in height and are covered during periods of inactivity.
- c. A water truck and spill response kit are also situated near the waste piles for dust suppression and cleanup, as necessary.

d. An area for soil containing hazardous levels of lead (and in this context, “hazardous” is by reference to RCRA standards) is located separately from the area for non-hazardous soils.

e. Particulate matter air monitoring devices are employed during load-out (dumping) of the contaminated soils onto the waste piles. One air monitor is stationed upwind of the waste piles and another is stationed downwind. The trigger level for these air monitors is the same as those mentioned earlier: $150 \mu\text{g}/\text{m}^3$ PM, with an alarm at $100 \mu\text{g}/\text{m}^3$. If particulate matter levels become elevated, water is applied to the to suppress any dust.

100. At various intervals, contaminated soil that is staged at the Chemours’ property is shipped to a CERCLA-approved landfill for proper disposal

I. Site-Wide Air Monitoring

101. In addition to air monitoring performed in conjunction with excavation work being done at a specific property, EPA has installed six high-volume air samplers (“HVASs”) (two in each Zone) at the Site. These high-volume air samplers are similar to those used to monitor compliance with National Ambient Air Quality Standards (“NAAQS”), which are standards that EPA issues to protect public health and welfare from the presence of air pollution in the ambient air. It is not typical to deploy HVASs at Superfund Sites in general but EPA has deployed six in the Calumet neighborhood. These are designed to help determine where the source of any contamination above the NAAQS might be coming from and to enable EPA to compare data across the different zones. This data can also be compared to other HVASs that the state has installed at various locations in and around East Chicago so that EPA can compare data across neighborhoods. These HVASs were setup just before excavation work began in Zone 3 so that EPA could start developing a

baseline for ambient air quality that could be compared against data generated during individual removal actions.

102. The HVASs collect samples on Monday, Wednesday, and Friday of each week. Samples are then submitted to a lab for analysis, and ambient lead results are compared to the NAAQS. However, since there is no specific NAAQS for arsenic, EPA developed a site-specific standard for arsenic. To date, none of the samples from any of the HVASs have exceeded the NAAQS for lead or the site-specific standard for arsenic. If, however, there were to be an exceedance, EPA would both (1) evaluate, in conjunction with meteorological data, whether the exceedance can be traced to an off-site source, and (2) compare the data from the affected HVAS to the data from the excavation-specific air monitors to determine if EPA excavation activities were or might have been the source of the spike in air contamination and if additional procedures are necessary.

J. DATA MANAGEMENT

103. EPA has made sampling data, the Administrative Record and other documents (*e.g.*, recent sampling protocols), available to the public. That data can be found online at <https://www.epa.gov/uss-lead-superfund-site>. Publically released data has been redacted for personally identifiable information (“PII”) such as addresses.

104. The Incident Command also implemented a robust and extensive data management plan at the Site. This plan standardized how all data generated and related to all activities across the entire Site is developed, stored, and displayed, so that that information can be quickly and easily retrieved, shared, and analyzed by EPA, its partners, and the public. Data managed in this way includes data related to all sampling results at the Site (*e.g.*, indoor dust, indoor lead-based paint, soil, and air sampling) and relocation and cleaning work (*e.g.*, resident forms and pre- and post-cleaning documentation).

105. To share this data with its partners and with the public, EPA has also developed an internet-based data sharing platform, or “Web Viewer,” that allows users to see, in real time, data gathered in connection with the Site, as it becomes available to EPA. This data can be overlaid onto various maps of the Site, allowing users to see where and to what extent contamination is located. The purpose of the Web Viewer is to share data with EPA’s partners and with the public, and more generally to provide transparency as to EPA’s activities at the Site.

106. Two versions of the Web Viewer are available to outside parties: a Partner Web Viewer and a Public Web Viewer. Because data in the Partner Web Viewer contains personally identifiable information (“PII”), EPA provides access to this version of the Web Viewer only to parties coordinating with EPA to effectuate its remedy at the Site. Even then those parties must sign a confidentiality agreement to keep any PII secure.

107. The Partner Web Viewer allows authorized local, state, and federal agencies working at the Site, as well as the defendants to the Consent Decree (who are performing sampling, transportation, and disposal work at the Site), to learn relevant information about specific properties—and the Site as a whole—at the same time as EPA learns it. In particular, the Partner Web Viewer provides visualizations for a number of different data sets including: soil sampling results, indoor dust sampling results, air monitoring results, and excavation status. This data can be overlaid onto aerial, street, and even historic maps of the Site, allowing for further analysis and coordination by different parties. For example, health officials can use the Partner Web Viewer to track possible correlations between soil contamination levels and various health effects; public utilities workers can know what protective gear is necessary when performing work on a property; settling parties can know which properties will require remediation work and can plan soil

transportation and disposal logistics accordingly. The Partner Web Viewer became available to each applicable parties as that party signed a confidentiality agreement.

108. The Public Web Viewer is available to the public and allows the public to view soil and indoor dust sampling results on a block level. Much like the Partner Web Viewer, the Public Web Viewer also includes aerial, street, and historic visualizations of the Site. The Public Web Viewer displays data only on a block level because EPA cannot release PII, and providing the information on a property level but redacting the address would still allow someone other than the homeowner to associate sampling data with an address. EPA currently is working to integrate the air monitoring results into the Public Web Viewer in a manner that will be readily digestible by the public. The Public Web Viewer went live the week of October 10, 2016.

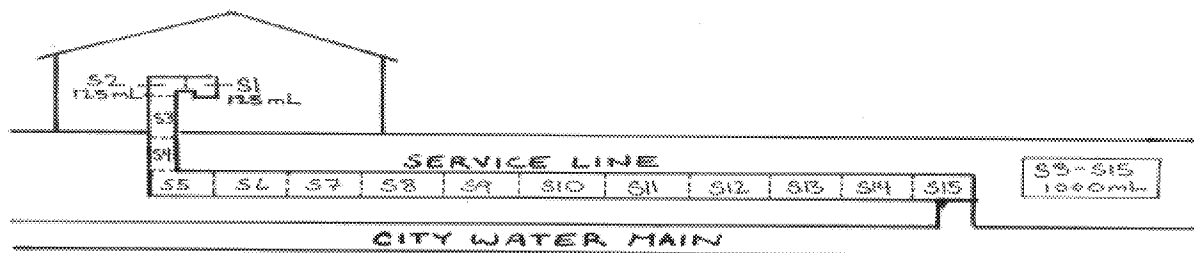
K. TAP WATER SAMPLING

109. General. In the course of discussions with EPA, the City of East Chicago informed EPA that a large share of the homes at the Site had lead service lines. Generally speaking, lead in lead service lines does not corrode and flake off into the drinking water itself because the insides of pipes are often lined with protective surface coatings (also known as “scales”) composed of minerals less susceptible to corrosion. However, a recent EPA study in Chicago indicated that heavy construction near and around lead service lines may cause some of those scales to become dislodged, exposing the lead underneath and risking corrosion. Under these conditions, lead can flake off from the pipe and enter the drinking water.

110. Water Pilot Study. EPA decided to conduct a “Water Pilot Study” at certain properties in Zones 2 and 3 that were remediated in the fall of 2016. The Water Pilot Study is intended to try to determine whether EPA’s remedial activities will negatively affect lead service lines.

111. Water Sampling Procedures. EPA employed the same water sampling procedures in Zones 2 and 3. These procedures were developed in response to the drinking water issues in Flint, Michigan. To simplify, the procedures were generally as follows:

- a. EPA took tap water samples on two different dates for each property: a date before any soil excavation work had begun and a date after. On each date, residents were prohibited from using their water (all water) for 6 hours prior to the sampling so that the water could sit (stagnate) in the pipes leading to the home (*i.e.*, service lines).
- b. On each of the two sampling dates, EPA took sequential water samples of *all* of the water that had stagnated in the service line between the kitchen tap and the water main. EPA collected two 125 milliliter “first draw” samples from the tap, and then, from that same kitchen tap, collected additional samples in 1 liter increments until all of the water that had stagnated in the service line was collected. The number of sequential samples taken varied depending on the length of the service line. Typically, 15–18 samples were required. Sequential sampling, as broadly diagramed below, looks like this:



- c. All of the samples collected in this manner were sent to the lab and analyzed for, among other things, metals (aluminum, calcium, chromium, copper, iron, lead, magnesium, manganese, nickel, tin, and zinc). A subset of samples was also tested for dissolved metals (the same), and for total phosphorus, total alkalinity, sulfate, chloride, fluoride, pH, and temperature.

112. Bottled Water and Water Filters. After the pre-excavation sampling and for the duration of EPA's work at a home, EPA provided residents with bottled drinking water. After the post-excavation sampling, EPA provided residents with a water tap filter. EPA's decision to provide post-excavation water filters did not reflect any determination that the excavation work had in fact dislodged lead. Indeed, validated results from the pre- and post-excavation sampling had generally not been completed at the time of the issuance of the water filters. The issuance of the water filters was a longer-term prophylactic that residents could use pending EPA's ability to validate and evaluate the tap water pre- and post-excavation sampling. EPA ultimately provided water filters to all residents whose properties were excavated during 2016, including to those residents whose properties were not sampled for the Water Pilot Study.

113. Results. Preliminary results indicate that EPA activities are not impacting the lead service lines. However, EPA is continuing to analyze the sampling data.

IV. EPA'S CURRENT PLANS REGARDING FUTURE ACTIONS IN ZONES 1, 2, AND 3

114. My ability to provide specific details about EPA's future actions in Zones 1, 2 and 3 is constrained because conditions and issues at this Site have been and likely will continue to be in a state of flux. EPA must be able to provide an appropriate response to whatever conditions and issues exist at the time of the response. Moreover, some of EPA's plans are dependent upon enforcement actions that are necessarily confidential at this time. Nevertheless, just as EPA has demonstrated over the course of the last six months in carrying out the unprecedented response action at the Site that is detailed in this Declaration, EPA will continue to perform its essential mission to protect human health and the environment. EPA remains committed to remediating the lead and arsenic contamination at the USS Lead Site and will work diligently with federal, state and local partners to ensure that East Chicago residents have a safe and healthy place to live.

A. ZONE 1

115. As discussed in Part II.A, the Consent Decree provides funding for remedial work in Zone 1 consistent with the current Record of Decision. However, that work is currently on hold. In part that is because of the relocation efforts currently taking place. EPA does not want to cause more stress or confusion for the Zone 1 residents as they leave the Housing Complex. That said, EPA believes based upon the work already done at the Housing Complex—including the mulching, indoor cleaning, and educational outreach—that short-term exposure to lead and arsenic has been mitigated.

116. The work is also on hold because issues related to the cleanup are in a state of flux. As mentioned above, the Housing Authority has filed an application with HUD to permit the Housing Authority to demolish the property. That application is currently under review. If EPA were to remediate Housing Complex soils now, and the Housing Authority subsequently demolished the Housing Complex, contaminated soil currently covered by the housing structures, streets, and sidewalks would become exposed and would almost certainly re-contaminate the clean soils that EPA had filled the yards with.

117. Additionally, the remedial standards for the Housing Complex property may change depending on what the intended future land use is. For example, if the City decides to rezone the property for light industrial, remediation might only require excavating the first 12, not 24, inches of soil. In addition, the Remedial Action Level for soil is different for residential land use compared to light industrial land use. Together, these changes could affect the cost of the remediation. As discussed earlier in Paragraph 14(f), the National Contingency Plan requires EPA to consider cost when selecting a remedy. Performing a remediation to residential standards on a property to be used for light industry would be inconsistent with those regulations.

118. On August 18, 2016, EPA sent a letter to Mayor Copeland, requesting that the City confer with the Housing Authority and HUD regarding the future land use for the property, then inform EPA of any decision made. EPA has not yet received a response to this letter.

119. Depending upon the future land use, EPA may have to make a fundamental change to the Record of Decision as it applies to the Housing Complex property. Any such fundamental change would require an amendment to the Record of Decision, and any such amendment would be put out for public comment. EPA would then consider those comments before deciding whether to issue a new Record of Decision for the Housing Complex property.

B. ZONE 2

120. At least another 395 properties in Zone 2 still require remediation. While the Record of Decision memorializes EPA's commitment to remediating the entirety of the Calumet neighborhood, it does not determine the funding mechanism or the timeframe for that work. In addition, as discussed earlier in this Declaration, the Consent Decree does not provide funding for Zone 2 remediation. Nevertheless, EPA is committed to ensuring that the Zone 2 soil cleanup is performed as quickly as possible and is actively working toward that goal. It would not be appropriate nor prudent for me to say more.

C. ZONE 3

121. For the Zone 3 properties that EPA has access to, 212 still require remediation. EPA has already secured funding to remediate Zone 3 through the Consent Decree and EPA expects to re-mobilize work crews and begin to address those properties in spring 2017. That said, based on its experience this fall, EPA expects work in Zone 3 to be more time, labor, and resource intensive than originally anticipated. Homes in Zone 3 are tightly packed together, limiting the use of heavy equipment to excavate the soil and requiring slower, hand-excavation work. Properties in Zone 3

also have extensive landscaping features (flower beds, brickwork, trees, *etc.*) that require more time to restore after excavation is complete. As a result, EPA will attempt to, but does not expect to, remediate all 212 Zone 3 properties in 2017. Any Zone 3 properties that are not remediated in 2017 will be remediated in 2018.

122. EPA used three crews in Zone 3 this fall. EPA considered using more than the three crews to increase the pace of work. However, EPA determined that it would be too difficult to coordinate their activities and that too many crews in that proximity to each other in Zone 3 would begin to interfere with another.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that these statements are true and correct to the best of my knowledge and belief.

s/Douglas Ballotti
Douglas Ballotti

December 16, 2016

INDEX OF ATTACHMENTS

- A-1 Map – Site with Operable Unit Markings
- A-2 Map – Operable Unit 1 with Zone Markings
- A-3 Fact Sheet, EPA, Remedial Investigation: Site Characterization and Treatability Studies (Nov. 1989)
- A-4 Combined USS Lead Administrative Record Index
- A-5 Press Release, U.S. Department of Justice, U.S. and Indiana Enter into Settlement for \$26 Million Cleanup in East Chicago, Indiana (Sept. 3, 2014)
- A-6 Carrie Napoleon, In path of pollution, EC residents react to \$26 million cleanup pact, Merrillville Post-Tribune, Sept. 6, 2014
- A-7 Example USS Lead Sampling Results Letter
- A-8 Memorandum, *Using Arsenic for Decision-Making at USS Lead Zone 3*, from Field Environmental Decision Support (FIELDS) Team, EPA, to Thomas Alcamo, Remedial Project Manager, EPA (Oct. 12, 2016)
- A-9 Example USS Lead Remedial Design Drawing
- A-10 EPA, Pollution/Situation Report #49 (Nov. 2, 2016)
- A-11 Memorandum, *Development of an Indoor Dust Screening Criteria for the USS Lead Site*, from Keith Fusinski, Toxicologist, EPA, to Jim Mitchell, On-Scene Coordinator, EPA (Aug. 10, 2016)
- A-12 Memorandum, Justification for Using Site-Specific Arsenic Background Concentration in Soil for Indoor Dust Screening Concentrations for the USS Lead Site, from Keith Fusinski, Toxicologist, EPA, to Jim Mitchell, On-Scene Coordinator, EPA (Dec. 13, 2016)
- A-13 EPA, *Temporary Relocation Operations Plan*, West Calumet Housing Complex (Oct. 2016)
- A-14 Memorandum, *Recommended Screenings Levels for Airborne Arsenic and Lead During Digging Operations in Zone-3 of the USS Lead Site*, from Keith Fusinski, Toxicologist, EPA, to Thomas Alcamo, Remedial Project Manager, EPA (Oct. 13, 2016)
- A-15 EPA USS Lead Post-Excavation Satisfaction Survey Results, Compiled



United States of America, State of Indiana,
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-1 to Douglas Ballotti Declaration:

Map – Site with Operable Unit Markings



-  OU-1 boundary
-  OU-2 boundary

Basemap source: Esri



US SMELTER & LEAD REFINERY
LAKE COUNTY, EAST CHICAGO, INDIANA

APPENDIX A
USS LEAD SITE

EPA REGION 5 RAC 2 | REVISION 0 | JULY 2014



United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-2 to Douglas Ballotti Declaration:

Map – Operable Unit 1 with Zone Markings



Zone

Basemap source: Esri



US SMELTER & LEAD REFINERY
LAKE COUNTY, EAST CHICAGO, INDIANA

APPENDIX D
OU1 ZONES

EPA REGION 5 RAC 2 | REVISION 0 | JULY 2014



United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-3 to Douglas Ballotti Declaration:
Fact Sheet, EPA, *Remedial Investigation: Site Characterization and Treatability Studies*
(Nov. 1989)



The Remedial Investigation Site Characterization and Treatability Studies

This fact sheet is the second in a series of four that describes the remedial investigation/feasibility study (RI/FS) process. Included within this fact sheet is a summary of Chapters 3 and 5 of the *Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (October 1988, OSWER Directive No. 9355.3-01). These chapters discuss site characterization and treatability studies, respectively. Also included is information on how to manage these aspects of the remedial investigation (RI).

The RI builds on activities initiated during scoping and includes implementation of the work plan (WP), the sampling and analysis

plan (SAP), and the health and safety plan (HSP). Field data are collected and analyzed to determine the problems posed by a site and to support the identification of potential remedial actions. For sampling efforts to be better focused, it may be desirable to conduct iterative, and increasingly focused, field investigation rounds. Thus, the RI objectives may be better balanced with time and resource constraints. A schematic of the major components that comprise the RI is presented in Figure 1.

Treatability studies provide data on remedial technologies and their effectiveness on the specific waste found at a site. Ideally, the need for these investigations

is identified during scoping, while the testing program is developed and implemented during the RI.

Remedial Investigation Activities

Conduct Field Investigations

Field investigations define a site's physical characteristics as well as its sources, nature, and extent of contamination. In addition to characterizing a site, these activities may also be conducted to gather data on required design/operation parameters for the technologies being considered for remedial action. Because the RI and FS are interactive processes that are conducted concurrently, field investigation activities will be ongoing during the development and screening of remedial action alternatives. Sampling methods for obtaining site data are outlined in the *Compendium of Superfund Field Operations Methods* (September 1987, OSWER Directive No. 9355.0-14); relevant chapters from this compendium are noted on Table 3-1 of the *RI/FS Guidance*.

Note: Support activities are required before conducting field investigations and may take several months to be completed. Activities may include:

- Obtaining access to areas of investigation
- Procuring subcontractors, equipment, and supplies
- Selecting and coordinating with an analytical laboratory
- Procuring onsite facilities for RI activities
- Providing for storage/disposal of contaminated materials generated during the RI

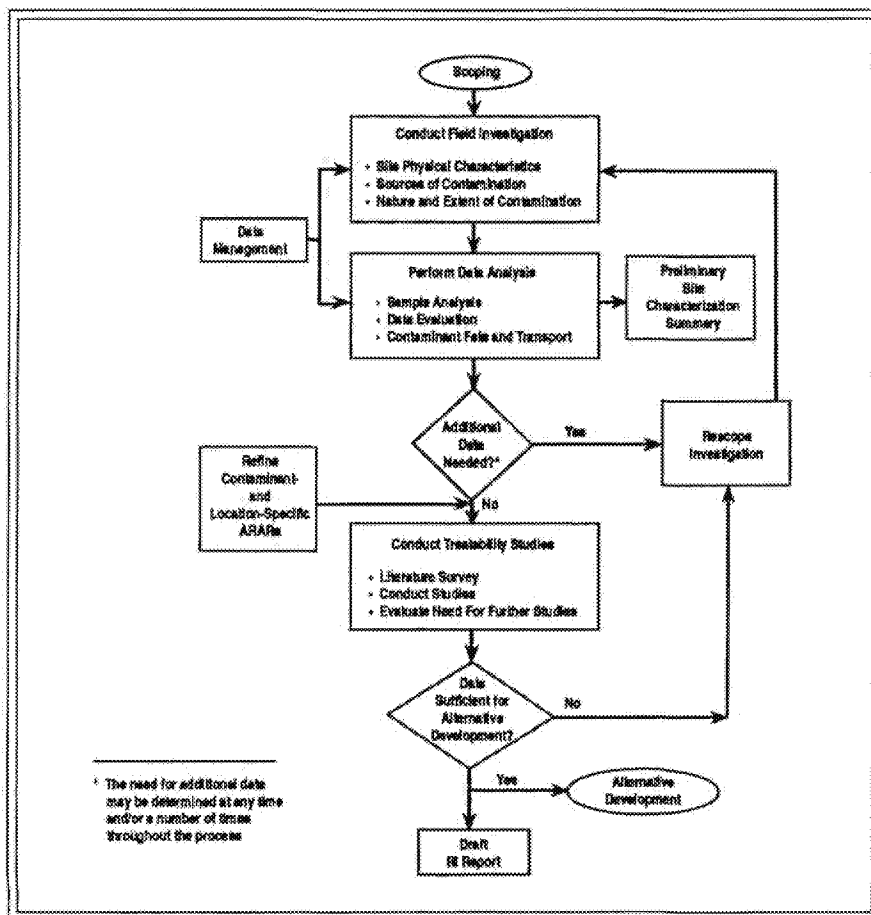


Figure 1. Major Components of the Remedial Investigation

Define Site Physical Characteristics

Data on the site's physical characteristics and the surrounding areas are collected to: (1) define potential transport pathways and receptor populations and (2) provide sufficient engineering data to develop and evaluate remedial action alternatives. Information used to define a site's physical characteristics includes:

- Site surface features
- Site geology
- Soil and vadose-zone characteristics
- Site hydrogeology
- Surface water hydrology
- Meteorological data
- Human population, land, and water use data
- Ecological information

These data may be obtained from a variety of sources including, but not limited to: historical photographs, topographic surveys, site operational records, sampling/monitoring results, demographic information, USGS and zoning maps, and interviews with present/past site owners and employees.

Characterize Sources of Contamination

Source characterization includes defining: (1) facility characteristics that identify source locations; (2) the quantity of wastes that are either contained in, or have been released in, the environment; and (3) the physical and chemical characteristics of wastes present in the sources. As a part of source characterization, the location, type, and integrity of waste containment structures (e.g., drums) are evaluated to determine the potential for substance release and its magnitude. The data required for source characterization are typically obtained through site inspections, mapping, remote sensing, and sampling and analysis. Quantities of wastes are estimated either from verifiable inventories of containerized waste, from sampling and analysis, or from physical dimensions of the source.

Characterize Nature and Extent of Contamination

The final objective of the field investigation performed during the RI is to investigate the extent of contaminant migration, including the

volume of contamination and any changes in site physical and chemical characteristics. This process involves using the information on physical site data and source location for a preliminary estimate of the locations of contaminants that may have migrated into the environment. An iterative monitoring program is then implemented so that, using increasingly accurate analytical techniques, the locations and concentrations of contaminants that have migrated can be defined. The final step is to ensure that the extent of contamination is confirmed with adequate data of sufficient quality to support risk assessment and the analysis of remedial alternatives.

The sampling and analysis approach used to determine the extent of contamination is discussed in Section 4.5.1 of U.S. EPA's *Data Quality Objectives for Remedial Response Activities* (March 1987, OSWER Directive No. 9335.0-7B).

Note: Because of the inherent uncertainties associated with Superfund sites, it is impossible to definitively characterize the nature and extent of contamination at a site. Adequate site characterization requires data that meet DQOs, define the risks posed by a site, demonstrate clearly the need for remedial action, and support the rationale for selecting a remedial action alternative.

Perform Data Analysis

Laboratory Analyses

The type of laboratory chosen to analyze the site characterization samples may include a mobile laboratory, a laboratory with whom the EPA has contracted under the contract laboratory program, (CLP), or a non-CLP laboratory. The type of laboratory selected will depend on the analytical services required, the number of samples to be analyzed, and the desired turnaround time. In many cases, it may be appropriate for more than one type of laboratory to be used. For example, mobile or non-CLP laboratories may be used for the quick analysis of screening level samples, while selected duplicate and/or split samples may be sent to CLP laboratories to confirm and validate the initial estimation of the nature and extent of contamination.

Note: A combination of laboratory services adequate to achieve the established DQOs, results in more effective use of time and money.

Data Evaluation

The results of the field investigation presented as an analysis of site physical characteristics, sources of contamination, the nature and extent of contamination, and the risk associated with the contamination. Defining the risks to human health and the environment is a function of the baseline risk assessment. The baseline risk assessment is addressed in a separate fact sheet entitled, *Risk Assessment Guidance for Superfund: Human Health Evaluation Manual*. This fact sheet is being prepared by the Hazardous Site Evaluation Division in the Office of Emergency and Remedial Response.

Data Management

The quality and validity of information generated during the RI must be effectively tracked by a data management system to allow it to be used to support remedy selection and any legal or cost recovery actions. The RI data management system should include:

- Field Logs—to document field investigation activities and observations, field measurements, and any unusual circumstances or occurrences.
- Laboratory and QA/QC Reports—to provide chain-of-custody and sample shipment records, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and data deficiencies.

All records should be maintained throughout the RI/FS to ensure that only final and approved analytical data are used in the site analyses. Precautions should be taken to prevent the introduction of errors or the loss or misinterpretation of data. A data security system should be created to safeguard and prevent free access to project records.

Note: In some cases, the use of non-validated data is warranted to prepare internal review documents, to begin data analysis, and to continue refining remedial action alternatives. Preliminary data, however, can lead to improper conclusions and are, therefore, considered unofficial. These data must be updated upon receipt of QA/QC comments.

Define Contaminant Fate and Transport

Results of the site physical characterization, source characterization, and extent of contamination analyses are combined to determine and project contaminant

fate and transport. This involves determining the actual fate and transport of contaminants from the sources and the mobility and persistence of source contaminants.

If information on contaminant release is available, the observed extent of contamination may be used in assessing the transport pathway's rate of migration and the fate of contaminants over the time span between release and monitoring. Contaminant fate and transport may also be estimated on the basis of site physical and source characteristics. Either type of analysis may be based on semi-analytical, analytical, or numerical models. While field data generally best define the extent of contamination, models can interpolate among, and extrapolate from, isolated field samples to areas and times not sampled.

Note: Modeling techniques to determine contaminant fate and transport may not be necessary if site conditions are well understood and if the potential effectiveness of different remedial actions can be easily evaluated.

Define Contaminant- and Location-Specific ARARs

Identification of potential applicable or relevant and appropriate requirements (ARARs) is initiated during scoping and continues throughout site characterization activities. During the RI, as a better understanding is gained of site conditions and contaminants, identification of contaminant- and location-specific ARARs continues to: (1) better plan future field activities, including identifying the scale of any required treatability studies, and (2) identify remedial action alternatives. *The CERCLA Compliance with Other Laws Manual* (Part I - August 1988 and Part II - August 1989, OSWER Directive Nos. 9234.1 and 9234.1-02) contains detailed information on identifying and complying with ARARs.

Evaluate Additional Data Needs

As data are collected, and a better understanding of the site and the risks that it poses is obtained, the preliminary remedial action alternatives, initially identified during scoping, should be further refined. The available data should then be evaluated to determine if: (1) the DQOs have been met, (2) the risks posed by the site have been

adequately defined, (3) the need (or lack of) for additional remedial action alternatives, and (4) the data necessary for the development and evaluation of remedial action alternatives have been obtained. Site characterization is complete when these criteria have been met.

Conduct Treatability Studies

The need for treatability testing should be identified during project scoping to avoid delays in the RI/FS schedule. During scoping, a literature survey should be conducted to gather information on a technology's applicability, performance, implementability, relative costs, and operation and maintenance requirements. If practical candidate technologies have not been sufficiently demonstrated or cannot be adequately evaluated on the basis of available information (e.g., characterization of a waste alone is insufficient to predict treatment performance or the size and cost of treatment units) treatability testing should be performed. The treatability testing program will be designed and implemented during the RI, while other field activities are under way. Design and implementation of a testing program will include:

- Preparation of a WP, SAP, and HSP
- Performance of field sampling, if required
- Implementation of a testing program
- Evaluation of test results and documentation in a report

If the project plans developed for the RI/FS do not adequately define the activities to be performed during the treatability studies, a WP, SAP, and HSP must be developed before beginning the testing program. The required contents of these plans are listed in Appendix B of the *RI/FS Guidance*.

The decision to use a bench- versus a pilot-scale test is affected by a number of factors, including the level of development of the technology, the composition of the waste, and the nature and representativeness of the desired data. For a technology that is well developed and tested, bench studies may be sufficient to evaluate performance on new waste types. Pilot tests may be necessary if information needed to operate the technology at full scale is limited, if there is a need to investigate secondary effects of the process, or if the waste being tested is complex or unique.

Following the treatability testing program, an evaluation report is prepared that analyzes and interprets the test results considering the technology's effectiveness, implementability, environmental impacts, and cost. Full-scale application of the technology will be evaluated and should include the identification of key parameters and unknowns that can affect full-scale operations.

Additional information on treatability studies can be found in a document entitled, *Guide to Conducting Treatability Studies under CERCLA*. This guide is currently being developed by the Office of Research and Development in their Risk Reduction and Engineering Laboratory in Cincinnati, Ohio.

Note: The need for treatability studies will result from initiating the alternative development process during scoping. A Technical Advisory Committee (TAC) should be used to achieve early consensus on potential remedial alternatives. Once the need for treatability testing has been identified, TAC support should continue with oversight of the development and implementation of the testing program as well as evaluation and interpretation of test results. (See *Scoping Fact Sheet, OSWER Directive No. 9355.3-01FS1*, for additional information on the TAC.)

Remedial Investigation Deliverables

Preliminary Site Characterization Summary

The preliminary site characterization summary is a concise summary of site data. This summary is developed after initial field efforts and: (1) provides a vehicle for the early sharing of ARARs with the support agency, (2) allows for early refinement of remedial alternatives, and (3) can be transmitted to the Agency for Toxic Substances and Disease Registry so that they may begin their required health assessment.

The format of the preliminary site characterization summary will be determined by the Region. The summary may be nothing more than a list of contaminants of concern and the affected media, or it

may be more extensive and review the investigation and field data.

Draft RI Report

The RPM reviews and approves the draft RI report after completion of RI activities. This report summarizes the results of the field activities to characterize the nature and extent of contamination, the fate and transport of contaminants, and the results of the baseline risk assessment. Table 3-13 in the *RI/FS Guidance* provides a suggested RI report format.

RPM Responsibilities

The RPM is responsible for managing the project to meet the RI/FS objectives within the time and cost constraints. These responsibilities include ensuring that adequate technical support is provided, as well as schedule maintenance and financial control of the project.

Technical Support

Techniques to assist in ensuring that adequate technical support is provided to the project during the RI include:

- Incorporate TAC participation throughout the RI to identify and resolve technical issues. When treatment is being considered for complex or difficult to treat waste, it is appropriate for ORD's START team to be included on the TAC. See the *Scoping Fact Sheet* (OSWER Directive No. 9355.301FS1) for additional information on the START team and other technical experts.
- Communicate on a regular basis with all involved parties (support agencies, consultants, TAC members) to reach a consensus on issues of concern and/or additional site work.
- Carefully consider the choice of analytical services to minimize the time required to process samples while maintaining the needed data quality level. Consider the contractor's ability to perform or subcontract analytical services.
- Ensure that contractors performing treatability studies have adequate experience and the necessary permits.

Schedule and Cost Control

The management techniques listed under technical support also assist in controlling schedule and cost. Other schedule and cost control techniques include:

- When possible, provide conditional approval to portions of the work plan to begin field activities early.
- Be aware that Basic Ordering Agreements can be used by consultants to expedite the procurement of subcontractors.
- Consider weather conditions when scheduling field activities; extreme weather conditions may delay the schedule and/or increase costs.
- Ensure that field contractors are trained in CLP procedures, including sample collection, shipment, and chain-of-custody requirements, to minimize the need to resample.
- Consider directing contractors to validate field data.
- Hold review meetings with all involved parties to expedite review of deliverables.
- Review monthly financial statements from consultants and make sure that all costs are justifiable.
- Understand the components of labor hour costs and verify that activities are conducted by appropriate personnel at the most effective level.
- Learn to anticipate cost and schedule problems based on the contractor's previous month's performance and take actions to minimize cost overruns and schedule delays.

Enforcement Considerations

Potentially responsible parties (PRPs) may conduct all RI activities, including any required treatability studies. It should be noted, however, that EPA reserves the right to conduct any aspect of the RI. As an example, EPA may conduct the baseline risk assessment since it serves as a primary means for supporting enforcement decisions. Both the administrative order (AO) and approved WP represent the negotiated agreement between EPA and the PRPs on how the RI is to be conducted. Modifications to the scope

of work must be approved by EPA before implementation.

As required by SARA, EPA will oversee all PRP activities with the assistance of a qualified third party. The objectives of such oversight include verifying that: (1) the RI/FS complies with CERCLA, the NCP, and relevant Agency guidance; (2) the work complies with the AO, Statement of Work, WP, and SAP; (3) all work is performed in accordance with acceptable scientific and engineering methods; and (4) an adequate data base is developed to support subsequent decisions and actions, either in the case of litigation or the development of the Record of Decision. Additional information on PRP participation in the RI/FS and PRP oversight can be found in Appendix A of the *RI/FS Guidance* and in OWPE's *Model Statement of Work for PRP-Conducted Remedial Investigations and Feasibility Studies* (June 2, 1989).



Points to Remember

- Initiate field support activities early and allow enough time in the schedule to complete them.
- Use DQOs to determine the quality of data needed from each field activity.
- Create a data management system for all RI activities.
- Minimize the need to mobilize/demobilize contractors.
- Use field screening, techniques and mobile laboratories, where appropriate.
- Turn data over to contractors for pre-analysis before data validation.
- Develop and implement the treatability testing program during the RI.
- Continue the identification of contaminant- and location-specific ARARs.
- Communicate regularly with all involved parties.
- Incorporate TAC participation throughout the RI.

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-4 to Douglas Ballotti Declaration:
Combined USS Lead Administrative Record Index



U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
USS LEAD SITE
EAST CHICAGO, LAKE COUNTY, INDIANA

EPA Region 5 Records Ctr.



286115

ORIGINAL
JANUARY 22, 2008

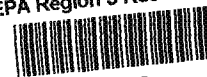
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1	04/28/06	U.S. EPA/ CRL	File	Generic Chain of Custody for the US Smelter Lead Refinery	26
2	05/02/06	U.S. EPA/ CRL	File	Generic Chain of Custody for the US Smelter Lead Refinery	17
3	05/26/06	U.S. EPA/ CRL	File	Review of Region 5 Data for US Smelter Lead Re- finery (ICP and GFAA Metals for Waters and Soils)	227
4	01/22/08	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request to Conduct a Time Critical Removal Action at the Residential Portion of the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED)	21



U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
USS LEAD SITE
EAST CHICAGO, LAKE COUNTY, INDIANA

EPA Region 5 Records Ctr.



299819

UPDATE #1
AUGUST 13, 2008
(SDMS ID: 299819)

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	06/17/08	Micke, F., U.S. EPA	Distribution List	Pollution Report (POLREP 1 - Initial) for the USS Lead Site (SDMS ID: 302347)	2
2	08/13/08	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum #2: Request for a Ceiling In- crease to Complete the Time Critical Removal Action at the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED - SDMS ID: 299818)	43

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
USS LEAD SITE
EAST CHICAGO, LAKE COUNTY, INDIANA

ORIGINAL
JANUARY 22, 2008
(SDMS ID: 286115)

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1	04/28/06	U.S. EPA/CRL	File	Generic Chain of Custody for the US Smelter Lead Refinery (SDMS ID: 286116)	17
2	05/02/06	U.S. EPA/CRL	File	Generic Chain of Custody for the US Smelter Lead Site (SDMS ID: 286117)	26
3	05/26/06	U.S. EPA/CRL	File	Review of Region 5 Data for US Smelter Lead Refinery (ICP and GFAA Metals for Waters and Soils (SDMS ID: 286118)	227
4	01/22/08	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request to Conduct a Time Critical Removal Action at the Residential Portion of the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED/SDMS ID: (SDMS ID: 286112)	16

UPDATE #1
AUGUST 13, 2008
(SDMS ID: 302347)

1	06/17/08	Micke, F., U.S. EPA	Distribution List	Pollution Report (POLREP) No. 1 - Initial for the USS Lead Site (SDMS ID: 302347)	2
2	08/13/08	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum #2: Request for a Ceiling Increase to Complete the Time Critical Removal Action at the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED/SDMS ID: 299818)	30

UPDATE #2
SEPTEMBER 9, 2011
(SDMS ID: 405474)

1	12/22/09	Sultrac	U.S. EPA	Excel File: USS Lead Sultrac Pb Results by Property (SDMS ID: 405471)	
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2	07/00/11	U.S. EPA	File	Figure: Sultrac Properties with Lead > 1,200 mg/kg in Soil 0-6" (SDMS ID: 405472)	1
3	09/12/11	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request for Approval and Funding for a Time-Critical Removal Action at the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED) (SDMS ID: 405473)	21

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMEDIAL ACTION

ADMINISTRATIVE RECORD
FOR
U.S. SMELTER AND LEAD SITE
OPERABLE UNIT #1: RESIDENTIAL AREA
EAST CHICAGO, INDIANA

ORIGINAL
JULY 10, 2012
(SDMS ID: 424428)

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	00/00/00	ATSDR/ISDH/ ECHD/IDEM/ U.S. EPA	Public	Fact Sheet on Blood Lead Screening East Chicago Health Exposure Investigation (SDMS ID: 438647)	5
2	00/00/00	U.S. EPA	Public	Fact Sheet: Lead Information for Parents (SDMS ID: 438649)	2
3	00/00/00	U.S. EPA	Public	Fact Sheet: Update on Corrective Action Activities Under the Resource Conservation and Recovery Act (RCRA) (SDMS ID: 438650)	2
4	00/00/00	U.S. EPA	File	Blank Form: USS Lead Superfund Site Community Involvement Plan Interview Questions (SDMS ID: 424315)	4
5	00/00/00	State of Illinois	File	35 Illinois Administrative Code Part 742 Title 35: Tiered Approach to Corrective Action Objectives (SDMS ID: 424370)	191
6	00/00/00	IDEM	File	Map: Wetlands Area Within Quarter Mile Radius of the U.S. Smelter and Lead Refinery (SDMS ID: 309315)	1
7	00/00/75	Illinois State Geological Survey	File	Handbook of Illinois Stratigraphy (Bulletin 95) (SDMS ID: 424367)	262

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8	11/00/81	U.S. DOI/ FWS	File	Map: National Wetlands Inventory (SDMS ID: 308250)	1
9	10/15/85	U.S. EPA	File	Inspection Report of Hammond Lead and USS Lead Refining Soil Survey (SDMS ID: 424351)	17
10	09/00/86	U.S. EPA	File	Guidelines for Carcinogen Risk Assessment (EPA/630/ R-00/004) (SDMS ID: 424353)	38
11	05/00/87	Eisler, R., U.S. Fish and Wildlife Service	File	Paper: Polycyclic Aromatic Hydrocarbon Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review (Con- taminant Hazard Reviews Report No. 11) (SDMS ID: 424365)	55
12	04/12/88	TechLaw, Inc.	File	Figure: Ecological Wet- lands Habitats at the USS Lead Site (SDMS ID: 424336)	1
13	10/00/88	U.S. EPA/ OSWER	U.S. EPA	Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Dir- ective 9355.3-01) (SDMS ID: 424355)	186
14	12/00/89	U.S. EPA/ OERR	U.S. EPA	Risk Assessment Guid- ance for Superfund Volume I: Human Health Evaluation Manual (Part A) (Interim Final) (EPA/540/1-89/002) (SDMS ID: 424350)	291
15	08/03/90	Resource Consultants	File	Site Assessment Plan for the USS Lead Refinery Site (SDMS ID: 424391)	137

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16	03/25/91	U.S. EPA/ OSWER	U.S. EPA	Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual Supplemental Guidance - Standard Default Exposure Factors (INTERIM FINAL) (OSWER Directive 9285.6-03) ((SDMS ID: 424354)	28
17	00/00/92	Massachusetts Department of Environmental Protection	File	Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil (SDMS ID: 424346)	9
18	02/00/92	U.S. EPA/ OERR	U.S. EPA	National Priorities List Proposed Site: U.S. Smelter and Lead Refinery, Inc. (SDMS ID: 438654)	1
19	02/07/92	U.S. EPA	Public	News Release: EPA Proposes 2 Midwest Sites for Superfund List (U.S. Smelter and Lead Refinery) (SDMS ID: 438651)	2
20	04/00/92	U.S. EPA/ OERR	U.S. EPA	Guidance for Data Useability in Risk Assessment (Part A) Final (Publication 9285.7-09A) (SDMS ID: 424356)	292
21	05/05/93	U.S. EPA	File	Guidance: Superfund's Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure (PRELIMINARY DRAFT) (SDMS ID: 424341)	21
22	08/00/95	ATSDR	File	Public Health Statement: Polycyclic Aromatic Hydrocarbons (PAHs) (SDMS ID: 424382)	6
23	08/00/95	ATSDR	File	Toxicological Profile for Polycyclic Aromatic Hydrocarbons (SDMS ID: 424381)	487

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24	03/00/96	U.S. EPA/ HUD	Public	Fact Sheet: Lead Hazard Prevention in Homes Pamp- let Released (SDMS ID: 438648)	2
25	07/23/97	The Times	Public	Newspaper Article: Lead Tests Offered to E.C. Residents (SDMS ID: 363423)	2
26	08/28/97	Fisher, D., IDEM	Method, T. & K. Nelson, IDEM	Memorandum: Lead Contamin- ation Investigation at the Anaconda Lead/Gosch School Property (SDMS ID: 363420)	2
27	08/28/97	Fisher, D., IDEM	File	Memorandum: Lead Exposure Investigation of the Ana- conda Lead/Carrie Gosch School Property (SDMS ID: 363421)	3
28	12/00/97	U.S. EPA	File	Environmental Fact Sheet: Waste-Derived Fertilizers (SDMS ID: 424360)	3
29	11/14/00	Law Engineering & Environmental Services, Inc.	USS Lead Refinery	Draft Independent Assess- ment of the Impacts of His- torical Lead Air Emissions (SDMS ID: 424361)	194
30	02/15/01	IDEM	File	Technical Resource Guid- ance Document: Risk In- tegrated System of Closure (SDMS ID: 424368)	362
31	07/24/01	Geochemical Solutions	File	Site Wide Sampling and Analysis Report for the USS Lead Refinery Site (SDMS ID: 424376)	16
32	04/05/02	TechLaw, Inc.	U.S. EPA	Air Dispersion Modeling and Historical Aerial Photography Review for the USS Lead Refinery Site (SDMS ID: 424388)	113
33	06/13/02	Underwriters Laboratories, Inc.	City of East Chicago	East Chicago Water Works Lead and Copper Results (PORTIONS OF THIS DOCU- MENT HAVE BEEN REDACTED) (SDMS ID: 424425)	2

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35	01/00/03	U.S. EPA/TRWL	U.S. EPA	Recommendations of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil (FINAL) (EPA-540-R-03-001) (SDMS ID: 424337)	62
36	08/00/03	U.S. EPA/OERR	U.S. EPA	Superfund Lead-Contaminated Residential Sites Handbook (OSWER 9285.7-50) (SDMS ID: 424362)	124
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38	02/13/04	DAI Environmental, Inc.	Mining Remedial Recovery Company	Off-Site Soil Excavation Indiana Harbor Belt Railroad (Triangle Area) at the USS Lead Refinery Site (SDMS ID: 424383)	136
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40	02/25/04	DAI Environmental, Inc.	Mining Remedial Recovery Company	On-Site Soil Excavation (Wetlands Area) at the USS Lead Refinery Site (SDMS ID: 424379)	17
41	03/01/04	Capiro, M., U.S. EPA	File	Memorandum re: MRFI Addendum Off Site Sampling and Analysis Report for the USS Lead Refinery Site (SDMS ID: 424377)	72

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44	04/20/04	TechLaw, Inc.	U.S. EPA	Draft Characterization of Lead and Other Metals in Soil in the Vicinity of the USS Lead Site (INTERNAL DRAFT) (SDMS ID: (424399)	141
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46	06/24/04	Phillips, G., U.S. EPA	Dufficy, J., U.S. EPA	Memorandum re: Referral of RCRA Subtitle C Corrective Action Facility to CERCLA for the U.S. Smelter and Lead Refinery Site (SDMS ID: 308229)	4
47	00/00/05	Wiley Interscience	File	Journal Article: Legal and Technical Defensibility of Data and the Triad Approach (Remediation Spring 2005) (SDMS ID: 424359)	18
48	03/00/06	U.S. EPA	Public	Fact Sheet: EPA to Begin Testing for Lead Contamination in Yards (SDMS ID: 372365)	5
49	04/12/06	U.S. EPA	File	Handwritten Notes re: Primary Questions and Concerns for the March 22-23, 2006 Public Availability Sessions and the April 12, 2006 Community Fair (SDMS ID: 424416)	3

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51	04/28/06	U.S. EPA/CRL	File	Generic Chain of Custody for the U.S. Smelter Lead Refinery (SDMS ID: 286117)	26
52	05/01/06	U.S. EPA	File	QA/QC XRF Analyses of Soil Samples Collected April 26-May 1, 2006 at the USS Lead Soil Contamination Site (MS Power Point File) (SDMS ID: 424415)	47
53	05/02/06	U.S. EPA/CRL	File	Generic Chain of Custody for the U.S. Smelter Lead Refinery (SDMS ID: 286116)	17
54	05/05/06	U.S. EPA	File	Sampling and Analysis Plan Addendum for the USS Lead Soil Contamination Site (SDMS ID: 424406)	5
55	05/26/06	U.S. EPA/CRL	File	Review of Region 5 Data for U.S. Smelter Lead Refining (ICP and GFAA Metals for Water and Soils) (SDMS ID: 286118)	227
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57	07/13/06	U.S. EPA	File	Presentation: Application of an Air-Dispersion Model to Predict Lead (Pb) Deposition from USS Lead Sources (MS Power Point File) (SDMS ID: 424423)	10
58	01/24/07	Berkoff, M., U.S. EPA	Concerned Citizen	Letter re: Status of U.S. EPA Work at the USS Lead Site (SDMS ID: 424418)	1
59	02/12/07	U.S. EPA	File	FIELDS Statistical Evaluation Summary for the USS Lead Soil Contamination Site (SDMS ID: 424403)	13

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61	03/21/07	U.S. EPA	File	Tables: Summary of Surface Soil Pb Concentrations by Distance and Event for the USS Lead Soil Contamination Site (MS Power Point File) (SDMS ID: 424424)	8
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63	08/00/07	ATSDR	File	Public Health Statement: Lead (SDMS ID: 424385)	13
64	08/03/07	IDEM	File	Background Sample Location Report for U.S. Smelter and Lead Refinery Site (SDMS ID: 308238)	104
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66	10/00/07	IDEM/U.S. EPA	Public	Fact Sheet: History and Current Issues at USS Lead (SDMS ID: 438653)	4
67	10/11/07	IDEM	Public	IDEM Public Notice re: Announcement of November 8, 2007 Open House Meeting for the Corrective Action Management Unit (CAMU) at USS Lead Refinery Site (SDMS ID: 424417)	1
68	11/08/07	Bugg, R., STN Environmental	Micke, F., U.S. EPA	Letter re: Draft Site Assessment Letter Report for the USS Lead Site (SDMS ID: 424392)	20
69	12/00/07	U.S. EPA	File	Information Sheet re: USS Lead Superfund Site Cleanup Status (SDMS ID: 424411)	1

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70	12/05/07	U.S. EPA	Public	Public Notice: Announcement of December 5, 2007 Public Meeting on the USS Lead Superfund Site (SDMS ID: 424401)	1
71	01/22/08	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request to Conduct a Time Critical Removal Action at the Residential Portion of the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED) (SDMS ID: 286112)	16
72	03/05/08	Smith, J., IDEM	Jaworski, M., IDEM	Memorandum re: Soil Type and Physical Characteristics from Background Site and Wetlands on USS Lead (SDMS ID: 308252)	4
73	03/12/08	Smith, J., IDEM	Jaworski, M., IDEM	Memorandum re: Use of USS Lead Site by Threatened and Endangered Species (SDMS ID: 308254)	94
74	03/21/08	Greentree Environmental Services, Inc.	File	Results of Surface Soil Test for Lead and Soil Content Only at 4802 Kennedy in East Chicago (SDMS ID: 424314)	
75	04/01/08	IDEM	File	Expanded Site Inspection Report for U.S. Smelter and Lead Refinery (SDMS ID: 308228)	263
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77	06/00/08	U.S. EPA	File	Lead and Copper Rule: A Quick Reference Guide (SDMS ID: 424413)	2
78	06/17/08	Micke, F., U.S. EPA	Distribution List	POLREP #1 (Initial) for the USS Lead Site (SDMS ID: 302347)	2

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79	06/30/08	Easterly, T., IDEM	Mathur, B., U.S. EPA	Letter re: Proposed In- clusion of U.S. Smelter and Lead Refinery on the National Priorities List (SDMS ID: 309300)	2
80	07/02/08	City of East Chicago	File	East Chicago Water Works Lead and Copper Results for 2008 (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED) (SDMS ID: 424426)	6
81	08/00/08	U.S. EPA/ OSWER	U.S. EPA	Technology Bulletin: Dem- onstrations of Method Ap- plicability Under a Triad Approach for Site Assess- ment and Cleanup (SDMS ID: 424369)	15
82	08/13/08	Micke, F., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum #2: Request for a Ceiling Increase to Complete the Time Critical Removal Action at the USS Lead Site (PORTIONS OF THIS DOCUMENT HAVE BEEN RE- DACTED) (SDMS ID: 299818)	30
83	09/00/08	Ripley, L., U.S. EPA & M. Jaworski, IDEM	File	HRS Documentation Record Review (SDMS ID: 309184)	50
84	09/00/08	U.S. EPA/ OSWER	U.S. EPA	National Priorities List Proposed Site: U.S. Smelter and Lead Refinery, Inc. (SDMS ID: 309301)	1
85	09/00/08	U.S. EPA/ OSWER/OSRTI	U.S. EPA	National Priorities List Proposed Site: U.S. Smelter and Lead Refinery, Inc. (SDMS ID: 314398)	1
86	09/03/08	U.S. EPA	Public	News Release: U.S. EPA Adds East Troy Site to Superfund List, Proposes Two Ohio and One Indiana Site (U.S. Smelter and Lead Refinery) for List (SDMS ID: 438652)	2

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87	11/18/08	Micke, F., U.S. EPA	Distribution List	POLREP #3 (Final) for the USS Lead Site (SDMS ID: 315595)	3
88	06/03/09	ATSDR	Public	Announcement of the Initial Release of a Public Health Assessment for U.S. Smelter and Lead Refinery and Notification of July 20, 2009 End of Comment Period (SDMS ID: 424318)	
89	06/19/09	U.S. EPA	File	Statement of Work for RI/FS at the USS Lead Superfund Site (SDMS ID: 424340)	16
90	06/21/09	U.S. EPA	File	Table: Calculations of Preliminary Remediation Goals (SDMS ID: 424358)	3
91	08/06/09	Riesing, R., SulTRAC	Quigley, E., U.S. EPA	Letter re: Remedial Investigation/Feasibility Study Oversight for the USS Lead Site (SDMS ID: 424393)	18
92	08/31/09	Weston Solutions, Inc.	U.S. EPA	Federal OSC Report, Re- vision 1, CERCLA Removal Action at the USS Lead Site (SDMS ID: 424390)	44
93	10/26/09	SulTRAC	U.S. EPA	Field Sampling Plan for the USS Lead Superfund Site (SDMS ID: 424387)	77
94	10/26/09	SulTRAC	U.S. EPA	Quality Assurance Project Plan for the RI/FS at the USS Lead Superfund Site (SDMS ID: 424395)	92
95	12/00/09	U.S. EPA	File	Fact Sheet: EPA to Begin Testing for Lead Contam- ination in Yards for the USS Lead Site (SDMS ID: 424396)	4

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97	12/00/09	U.S. EPA	File	Presentation for Public Meeting: USS Lead Superfund Site Implications for East Chicago (MS Power Point File) (SDMS ID: 424410)	16
98	12/08/09	United Neighborhood Organizations, Inc.	File	Sign-In Sheets for December 7-8, 2009 EPA Residential Lead Testing Meeting (SDMS ID: 424316)	
99	00/00/10	ATSDR	Public	Pamphlet: Protect Your Family for Lead in Your Yard (SDMS ID: 424402)	2
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106	10/18/10	Lantz, R., SulTRAC	Berkoff, M., U.S. EPA	Letter re: October 12, 2010 [REDACTED]. Soil Removal Oversight at the USS Lead Residential Area (SDMS ID: 424397)	6
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108	10/25/10	Berkoff, M., U.S. EPA	Artis, J., City of East Chicago	Letter re: East Chicago Redevelopment Environ- mental Response Completion Report for the U.S. Smelter and Lead Superfund Site (SDMS ID: 380914)	37
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111	04/00/11	U.S. EPA	File	Community Involvement Plan for the USS Lead Superfund Site (SDMS ID: 424320)	25
112	06/08/11	Gould, M., SulTRAC	Parikh, P., U.S. EPA	Letter re: RI/FS Over- sight at the USS Lead Site (SDMS ID: 424364)	17
113	06/29/11	U.S. EPA	File	Statement of Work for the RI/FS at the USS Lead Site (SDMS ID: 424363)	13
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116	10/00/11	SulTRAC	U.S. EPA	Technical Memorandum re: Remedial Alternatives Screening (DRAFT) (SDMS ID: 424389)	48
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118	11/01/11	Micke, F., U.S. EPA	Distribution List	POLREP #1 (Initial) for the USS Lead 2 Site (SDMS ID: 413853)	5
119	11/16/11	Micke, F., U.S. EPA	Distribution List	POLREP #2 for the USS Lead 2 Site (SDMS ID: 418177)	6
120	12/00/11	U.S. EPA	File	Presentation for Public Meeting: USS Lead Superfund Site (MS Power Point File) (SDMS ID: 424400)	16
121	12/15/11	Micke, F., U.S. EPA	Distribution List	POLREP #3 for the USS Lead 2 Site (SDMS ID: 418526)	6
122	12/30/11	FMT Consulting	Berkoff, M. & S. Kaiser, U.S. EPA	E-Mail Transmission re: Notes for December 5, 2011 USS Lead Superfund Project Meeting (SDMS ID: 438655)	3
123	02/23/12	Petroff, D., IDEM	Berkoff, M., U.S. EPA	Letter re: ARARs for the USS Lead Site (SDMS ID: 424412)	3
124	03/08/12	U.S. EPA	File	Presentation: U.S. Smelter & Lead Superfund Site Briefing (MS Power Point File) (SDMS ID: 424414)	8

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128	06/00/12	SulTRAC	U.S. EPA	Remedial Investigation Report (Final) for the U.S. Smelter and Lead Refinery Superfund Site w/ Appendices A-D (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED) (SDMS ID: 424434, 424435)	
129	06/00/12	SulTRAC	U.S. EPA	Feasibility Study Report (Final) for the U.S. Smelter and Lead Refinery Superfund Site (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED) (SDMS ID: 424433)	133
130	06/20/12	Hammond Lead Products	File	Company Profile and History (SDMS ID: 424366)	2
131	06/20/12	U.S. EPA	File	Webpage: Software and Users' Manuals for Addressing Lead at Superfund Sites (SDMS ID: 424344)	4
132	06/20/12	U.S. EPA	File	Information Sheet: Grand Calumet River Area of Concern (SDMS ID: 424357)	8
133	06/25/12	Berkoff, M., U.S. EPA	Legare, A., U.S. EPA/ NRRB	Letter re: U.S. EPA/ Region 5 Response to NRRB Questions/Concerns Relating to Proposed Remedial Action Levels for the U.S. Smelter and Lead Refinery Site (SDMS ID: 424339)	9

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U.S. ENVIRONMENTAL PROTECTION AGENCY
REMEDIAL ACTION

ADMINISTRATIVE RECORD
FOR
U.S. SMELTER AND LEAD SITE
OPERABLE UNIT 1: RESIDENTIAL AREA
EAST CHICAGO, LAKE COUNTY, INDIANA

UPDATE #1
SEPTEMBER 24, 2012
(SEMS ID: 441205)

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2	07/25/12	Trevino, F., FMT Consulting	U.S. EPA	Public Comment State- ment re: City of East Chicago's Disagreement with U.S. EPA's Proposed Alternative for the Remediation of the USS Lead Superfund Site (SEMS ID: 441151)	2
3	08/03/12	Steinwurtzel, R., Baker & Hostetler LLP	Berkoff, M., U.S. EPA	Letter re: USS Lead Refinery Comments on the Proposed Plan for Oper- able Unit 1 of the U.S. Smelter and Lead Refinery Site (SEMS ID: 441152)	20
4	08/11/12	Concerned Citizens	U.S. EPA	Three Public Comment Sheets: Comments on the Proposed Cleanup Plan for the USS Lead Super- fund Site (SEMS ID: 441150)	6
5	09/11/12	Elam, M., Barnes & Thornburg LLP	Berkoff, M., U.S. EPA	Letter re: Atlantic Richfield Company Comments on the Proposed Plan for USS Lead Operable Unit 1 Site (SEMS ID: 441153)	3

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REMEDIAL ACTION

ADMINISTRATIVE RECORD
FOR
U.S. SMELTER AND LEAD SITE
OPERABLE UNIT 1: RESIDENTIAL AREA
EAST CHICAGO, LAKE COUNTY, INDIANA

UPDATE #2
NOVEMBER 30, 2012
(441206)

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REMEDIAL ACTION**

**ADMINISTRATIVE RECORD
FOR THE
U.S. SMELTER AND LEAD SITE
EAST CHICAGO, LAKE COUNTY, INDIANA**

**UPDATE 3
JULY 6, 2016
SEMS ID: 927942**

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1	919700	9/3/14	U.S. EPA	Atlantic Richfield Co. and E.I. Du Pont de Nemours and Co.	Notice of Lodging of Proposed Consent Decree Pending Solicitation of Public Comments	5
2	919701	9/3/14	U.S. EPA	Atlantic Richfield Co. and E.I. Du Pont de Nemours and Co.	Consent Decree Relating to Response Action and Response Costs in Zones 1 and 3 of Operable Unit 1 of the USS Lead Site (with Appendices A-E)	293
3	927941	9/3/14	U.S. EPA	Atlantic Richfield Co. and E.I. Du Pont de Nemours and Co.	Complaint in Civil Action No. 14-312	11

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMEDIAL ACTION**

**ADMINISTRATIVE RECORD
FOR THE
U.S. SMELTER AND LEAD SITE
EAST CHICAGO, LAKE COUNTY, INDIANA**

**UPDATE 4
OCTOBER 28, 2016
SEMS ID: 930010**

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1	<u>424362</u>	8/1/03	U.S. EPA	File	Superfund Lead Contaminated Residential Sites Handbook	124
2	<u>424349</u>	3/1/04	Geochemical Solutions	USS Lead	Final USS Lead Modified RCRA Facility Investigation (MRFI) Report (Draft: Text Only)	46
3	<u>308202</u>	3/1/04	Geochemical Solutions	USS Lead	Final USS Lead Modified RCRA Facility Investigation (MRFI) Report (Draft)	878
4	<u>315595</u>	11/18/08	Micke, F., U.S. EPA	Distribution List	Pollution Report (POLREP) #3 - Final	3
5	<u>925313</u>	8/31/09	Weston Solutions	U.S. EPA	Federal OSC Report, Revision 1, CERCLA Removal Action	44
6	<u>413853</u>	11/1/11	Micke, F., U.S. EPA	Distribution List	Pollution Report (POLREP) #1 - Initial - USS Lead-2	5
7	<u>418177</u>	11/16/11	Micke, F., U.S. EPA	Distribution List	Pollution Report (POLREP) #2 - USS Lead-2	6
8	<u>418526</u>	12/15/11	Micke, F., U.S. EPA	Distribution List	Pollution Report (POLREP) #3 - USS Lead-2	6
9	<u>925318</u>	6/1/12	SulTRAC	U.S. EPA	Remedial Investigation Report (Final) for the U.S. Smelter and Lead Refinery Superfund Site w/ Appendices A-D (<i>Portions of this document have been redacted</i>)	9086
10	<u>928966</u>	7/1/12	U.S. Dept. of Housing and Urban Development	File	Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing	874

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11	<u>929468</u>	7/23/13	Del Toral, M., Porter, A., and Schock, M., U.S. EPA	File	Journal Article: "Detection and Evaluation of Elevated Lead Release from Service Lines: A Field Study"	8
12	<u>928964</u>	7/1/16	SulTRAC	U.S. EPA	Data Evaluation Report for Sampling Conducted During 2014- 2015 - USS Lead Residential Area (Text, Figures, and Tables)	101
13	<u>928955</u>	8/8/16	Johnston, M., U.S. EPA	Ribordy, M., U.S. EPA	Email re: Blood Lead Level Summary for Action Memo	2
14	<u>928958</u>	8/10/16	Vickers, J., Tetra Tech	Behnke, K., U.S. EPA	Data Validation Report - USS Lead Indoor Dust Samples from July 29 - August 4, 2016	35
15	<u>928957</u>	8/11/16	Vickers, J., Tetra Tech	Behnke, K., U.S. EPA	Data Validation Report - USS Lead Indoor Dust Samples from August 5, 2016	11
16	<u>928959</u>	8/12/16	Vickers, J., Tetra Tech	Behnke, K., U.S. EPA	Data Validation Report - USS Lead Indoor Dust Samples from August 8, 2016	10
17	<u>928960</u>	8/16/16	Vickers, J., Tetra Tech	Behnke, K., U.S. EPA	Data Validation Report - USS Lead Indoor Dust Samples from August 9, 2016	9
18	<u>928969</u>	8/16/16	King, J., Indiana State Department of Health	File	Lead Risk Assessment Reports for 14 Properties (<i>Portions of this document have been redacted</i>)	382
19	<u>928968</u>	8/18/16	Johnson, M., ATSDR	Ribordy, M., U.S. EPA	Email re: USS Lead - Updated Summary Table (<i>Portions of this document have been redacted</i>)	4
20	<u>928961</u>	8/24/16	Osborn, R., IDEM	Ribordy, M., U.S. EPA	Email re: Lack of State Resources to Conduct Removal	2
21	<u>928962</u>	8/26/16	Petroff, D., IDEM	Ribordy, M., U.S. EPA	Letter re: Applicable or Relevant and Appropriate Requirements (ARARs)	3
22	<u>929439</u>	9/14/16	Caudill, M., ATSDR	Ribordy, M., U.S. EPA	Email re: Blood Lead Level Statements for Your Records	1

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23	<u>929469</u>	10/7/16	Johnson, M., ATSDR	Ballotti, D., U.S. EPA	Memo re: Evaluation of Release of Lead from Water Service Lines and Temporary Use of Water Filters	2
24	<u>930009</u>	10/13/16	Ballotti, D., U.S. EPA	Stanislaus, M., U.S. EPA	Action Memorandum re: Third Amendment - Request for an Exemption from the \$2 Million and 12-month Statutory Limits, Change in Scope of the Response and Ceiling Increase for the Time- Critical Removal Action at the U.S. Smelter and Lead Refinery Site (<i>Portions of this document have been redacted</i>)	146
25	<u>929998</u>	10/28/16	Ballotti, D., U.S. EPA	Stanislaus, M., U.S. EPA	Action Memorandum re: Fourth Amendment - Request for a Change in Scope of the Response and Ceiling Increase for the Time- Critical Removal Action at the U.S. Smelter and Lead Refinery Site (<i>Portions of this document have been redacted</i>)	40

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Attachment A-5 to Douglas Ballotti Declaration:

Press Release, U.S. Department of Justice, *U.S. and Indiana Enter into Settlement for \$26 Million Cleanup in East Chicago, Indiana* (Sept. 3, 2014)



Department of Justice



ENVIRONMENTAL PROTECTION AGENCY

FOR IMMEDIATE RELEASE
WEDNESDAY, SEPTEMBER 3, 2014
WWW.JUSTICE.GOV

ENRD
DOJ (202) 514-2007
TTY (866) 544-5309
EPA (202)-564-7776

U.S. AND INDIANA ENTER INTO SETTLEMENT FOR \$26 MILLION CLEANUP IN EAST CHICAGO, INDIANA

WASHINGTON – Under a proposed settlement reached with the United States and the state of Indiana, the Atlantic Richfield Company and E.I. Du Pont de Nemours and Co. (DuPont) will pay for an estimated \$26 million cleanup of lead and arsenic contamination in parts of a residential neighborhood in East Chicago, Indiana, announced the U.S. Department of Justice and the U.S. Environmental Protection Agency (EPA).

The yards in this neighborhood are contaminated with lead and arsenic through industrial operations that took place from at least the early 1900s through 1985. During that time, lead smelting and refining as well as other manufacturing processes that used lead and arsenic were located on and near the area that came to be known as the Calumet neighborhood of East Chicago. The cleanup will involve digging up contaminated soil, hauling it away for disposal, and restoring the yards with clean soil.

Under the settlement, EPA itself will do the work in the neighborhood. EPA will identify the yards that need to be remediated, will work with property owners to develop property-specific drawings showing which soils on each property must be excavated, will do the excavation, and will restore the properties after excavation is complete. Atlantic Richfield and DuPont will pay for EPA's work and will also be responsible for transporting the contaminated soil out of the neighborhood and properly disposing of it.

To manage the cleanup, EPA and the state divided the Calumet neighborhood into three zones. Today's settlement covers two of them: a neighborhood that includes the Carrie Gosch Elementary School and residences operated by the East Chicago Housing Authority and a neighborhood located between the Elgin & Joliet Railway Line on the west and Parrish Avenue on the east. Cleanup of the third area of the Calumet neighborhood is the subject of further discussions.

"Under this settlement, Atlantic Richfield and DuPont will fund the first phase of cleaning up historical lead and arsenic contamination in residential properties in part of East Chicago," said Sam Hirsch, Acting Assistant Attorney General for the Department of Justice's Environment and Natural Resources Division. "This marks the start, not the end, of cleaning up the contamination that has burdened this community for far too long."

“This settlement ensures that almost 300 residential properties, parks and public spaces in East Chicago will be cleaned up – and that the companies responsible for contaminating those sites will pay 100 percent of the costs for this phase of the cleanup,” said EPA Regional Administrator Susan Hedman.

“My office previously has worked through the federal courts in other cases to improve the quality of life for citizens of East Chicago,” said Indiana Attorney General Greg Zoeller, whose office represented the Indiana Department of Environmental Management. “Under this appropriate cooperative effort between the state of Indiana and federal EPA, and with the commitments of the settling corporations, East Chicago residents will see progress made toward removing a health hazard and producing long-term benefit for their community.”

“This is great news for the citizens whose homes have been impacted,” said Indiana Department of Environmental Management (IDEM) Commissioner Thomas Easterly. “Everyone wins when responsible parties come together and agree to do what is best for the community.”

The Calumet neighborhood is part of an EPA Superfund site known as the USS Lead Site. EPA previously investigated the contamination in this neighborhood and issued a decision calling for its cleanup.

In a complaint filed simultaneously with the settlement, the United States and the state allege that Atlantic Richfield and DuPont are liable under the Superfund law for the cleanup because they or their predecessors either are owners or were owners/operators of plants that released lead and arsenic into the environment.

The terms of the settlement are included in a proposed consent decree filed with the U.S. District Court in Hammond, Indiana. The consent decree is subject to a 30-day public comment period and court approval. The consent decree will be available for viewing at www.justice.gov/enrd/Consent_Decrees.html.

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Attachment A-6 to Douglas Ballotti Declaration:

Carrie Napoleon, *In path of pollution, EC residents react to \$26 million cleanup pact*,
Merrillville Post-Tribune, Sept. 6, 2014

INDIANA ECONOMIC DIGEST

————— *Daily News on Business and Economic Events throughout Indiana* —————

Saturday, September 6, 2014

In path of pollution, East Chicago residents react to \$26 million cleanup pact

(Merrillville) Post-Tribune

Saturday, September 6, 2014

EAST CHICAGO — Residents in the city's Calumet neighborhood have lived in the shadow of industrial development for decades.

Emissions billowing from smokestacks are a part of life many of them have come to accept. So when the federal Department of Justice and [Environmental Protection Agency](#) announced Wednesday they had reached a proposed settlement with two companies for the \$26 million cleanup of land in the neighborhood due to extensive arsenic and lead soil contamination, many were unaware of the situation but not at all surprised.

Lawrence Purnell was among a group of men enjoying the summer weather this week in a small wedge-shaped piece of parkland in the cleanup zone north of the former U.S. Smelter and Lead Refinery, which has been identified as the main source of the contamination. The park is where the city hosts its Calumet Day celebration.

The men say they had not heard about the USS Lead [Superfund](#) designation and the cleanup being proposed, but the news was no shock.

"It's basically an industrial park," said a man in the group who identified himself only as Mr. Jefferson.

Jefferson, who said he has lived in East Chicago off and on for 56 years, described the neighborhood of small row homes mostly constructed between 1939 and 1959 and the industry that lines its eastern and southern borders. Jefferson said the neighborhood was built on jobs created by local industry.

"The area's flooded with chemicals," he said.

Jefferson said he has had friends and family members work at USS Lead while it was still in operation. Some still work at the industries that remain. The jobs industry represents, he said, are badly needed.

"It's just a way of life," Jefferson said.

USS Lead is a former lead smelter at 5300 Kennedy Ave., [according to the EPA report on the Superfund site](#). The facility was constructed in the early 1900s by the Delamar Copper Refinery Co. to produce copper.



A playground next to Carrie Gosch Elementary School is included in the Superfund site clean up for arsenic and lead in East Chicago on September 4, 2014. | Jim Karczewski/for Sun-Times Media

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In 1920, the property was bought by U.S. Smelting, Refining and Mining, and later by USS Lead, which operated a primary lead smelter at the facility until about 1972. The facility was then converted to a secondary smelter. All operations at the site stopped in 1985.

Yards in the Calumet neighborhood are contaminated with lead and arsenic through industrial operations that took place from at least the early 1900s through 1985, the report said.

Under the proposed settlement reached between the two agencies and the state, Atlantic Richfield Co. and DuPont (E.I. DuPont De Nemours and Co.). will pay for an estimated \$26 million cleanup that involves removing as much as 2 feet of soil from the yards of affected homes and public buildings including Carrie Gosch Elementary School, carting the soil away to a specially contained landfill and replacing the soil and affected landscaping.

Kim Bradley, the new principal at Carrie Gosch, said she was unaware of the Superfund designation. Bradley, who took the helm at the school three weeks ago, said she could not comment on the matter until she learns more.

The area was designated a Superfund cleanup site in 2008.

New resident Tommy Reed lives in one of the homes on McCook Avenue, in the cleanup site. Reed said he and his wife moved to the neighborhood from Indianapolis and were unaware of the situation.

Reed said they chose the neighborhood because it appears poised for change. The city has designated the area the Calumet Neighborhood Redevelopment Plan. Many abandoned homes bare signs they soon will be demolished as part of an ongoing effort to bolster the neighborhood and attract new residential and commercial development.

"I'm for improvement and rehabilitation," Reed said, adding he believes it is necessary to be conscious of the Earth and put back what is removed. He said cleaning up the contamination is important for residents and development alike.

"That would be wonderful," he said.

The settlement involves two of three areas at the USS Lead Superfund site, the neighborhood that includes the elementary school and residences operated by the East Chicago Housing Authority and the neighborhood located between the Elgin & Joliet Railway Line on the west and Parrish Avenue on the east.

Cleanup of the third area of the Calumet neighborhood is still under discussion.

Related Links:

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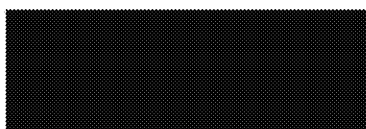
Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-7 to Douglas Ballotti Declaration:
Example USS Lead Sampling Results Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
 77 WEST JACKSON BOULEVARD
 CHICAGO, IL 60604-3590

September 14, 2016



Subject: U.S. Smelter and Lead Refinery Inc., Site, East Chicago, IN
Soil Sample Results



Dear [REDACTED]:

As you may recall, soil from your property was tested recently for lead and arsenic. This letter reports the lead and arsenic results for the soil samples collected from your property. The sampling results show that lead and/or arsenic concentrations in soils at your property exceed health-based standards, and therefore your property qualifies for a cleanup of those soils which pose a risk. The cleanup of those soils will be done at **NO COST** to you.

Soil testing results for your property are shown in the table below. Samples were taken from 0 to 6 inches, 6 to 12 inches, 12 to 18 inches, 18 to 24 inches, and in some cases 24 to 30 inches below the surface. Cleanup levels are 400 milligrams per kilogram (mg/kg) for lead and 26 mg/kg for arsenic. The results for your property show that levels of lead and/or arsenic are above cleanup levels at your property.

4906-08 Parrish Ave				
Depth	Front Yard – Lead (mg/kg)	Front Yard – Arsenic (mg/kg)	Back Yard – Lead (mg/kg)	Back Yard – Arsenic (mg/kg)
0-6 inches	690	40	3488	68
6-12 inches	780	25	340	16
12-18 inches	433	42	292	18
18-24 inches	590	15	Native Sand (NS)	Native Sand (NS)
24-30 inches	148	19	Native Sand (NS)	Native Sand (NS)

Notes: ND = not detected. NS = No samples collected because of native sand or sampling refusal.

Si necesita esta información traducida al español, entre en contacto con Charles Rodriguez, coordinador de participación comunitaria, por teléfono al 312-886-7472 o correo electrónico, rodriguez.charles@epa.gov.

Page 2

The timing for the cleanup of your property depends on a number of factors. EPA will notify you once it has developed a schedule for future work. Soils above cleanup levels will be excavated up to a maximum depth of 24 inches. Before beginning any cleanup work, representatives of EPA will meet with you to:

- Go over the details of the cleanup plan for your property;
- Document the conditions of the yard, house, and foundation using videos and/or photographs;
- Discuss any of your concerns; and
- Take an inventory of features such as landscaping, plants, bushes, decks, and patios.

The actual cleanup will involve the following steps:

1. Pre-cleanup interview with property owner and documentation of existing conditions (as mentioned above).
2. Excavate contaminated soils.
3. Backfill with clean soil.
4. Restore landscaping and grass.
5. Post-construction interview with property owner.

For the cleanup to be as effective as possible, please wait to do major construction or landscaping activities in the areas with elevated levels until after the cleanup is complete at your property. Activities such as bringing in fill, building a new patio or walkway, or other changes that disturb the soil may keep us from removing and safely disposing of all the contamination because it may be in a different place than when we sampled. If it is necessary for you to make changes like these, please contact me before starting those activities.

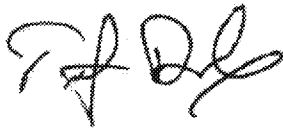
The attached sheets explain the effects of lead and arsenic and how to avoid exposure. Children are more sensitive to health effects from lead and arsenic than adults. To ensure the health and safety of children, the Agency for Toxic Substances and Disease Registry advises parents to prevent children from playing in dirt, to wash their children's toys regularly and to wash their children's hands after they play outside. All residents should remove shoes before walking into their homes.

Please be aware that if you live in housing built before 1978, you may be exposed to other sources of lead including paint and plumbing. Children aged six years and younger are particularly at risk. Blood lead testing is the only way to tell if a person has been exposed to high amounts of lead. The East Chicago Health Department offers **FREE** testing for children. To schedule a test, call the East Chicago Health Department at 219-391-8467. The health department is located at 100 W. Chicago Avenue East Chicago, Indiana.

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Thank you for your patience and cooperation. If you have any questions or would like to discuss your soil sampling results, please contact me at Drexler.Timothy@EPA.gov or 312-353-4367, weekdays. If I am unavailable, my colleague Janet Pope, Community Involvement Coordinator, may be able to help you. She can be reached at Pope.Janet@EPA.gov or 800-621-8431, extension 3-0628.

Sincerely,



Timothy Drexler
EPA Remedial Project Manager

Soils will be removed from your property because sampling results showed lead concentrations above 400 mg/kg or arsenic concentrations above 26 mg/kg.

If you have any questions, please contact:

Timothy Drexler
U.S. EPA Remedial Project Manager
312-353-4367

Janet Pope
U.S. EPA Community Involvement Coordinator
312-353-0628

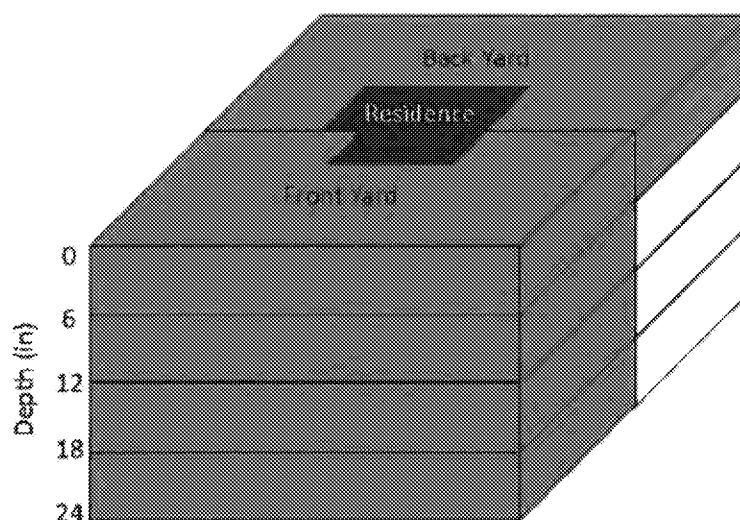


SOIL SAMPLING RESULTS



Depth	Front Yard – Lead (mg/kg)	Front Yard – Arsenic (mg/kg)	Back Yard – Lead (mg/kg)	Back Yard – Arsenic (mg/kg)
0-6 inches	690	40	3488	68
6-12 inches	780	25	340	16
12-18 inches	433	42	292	18
18-24 inches	590	15	Native Sand (NS)	Native Sand (NS)
24-30 inches	148	19	Native Sand (NS)	Native Sand (NS)

Notes: ND = not detected. NS = No samples collected because of native sand or sampling refusal.



	Contaminated Soil Will Be Removed at This Depth <ul style="list-style-type: none"> Soil at this depth contains levels of lead and/or arsenic that are above EPA's removal standards
	Soil at This Depth Will Be Removed to Remove Contaminated Soil Below <ul style="list-style-type: none"> Lead and/or arsenic contamination is not present above EPA's removal standards in this soil layer, but this soil will be excavated to remove underlying soils with lead and/or arsenic above EPA's removal standards.
	Soil Will Not Be Removed at this Depth <ul style="list-style-type: none"> Lead contamination levels are below EPA's removal standards.

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Attachment A-8 to Douglas Ballotti Declaration:

Memorandum, *Using Arsenic for Decision-Making at USS Lead Zone 3*, from Field Environmental Decision Support (FIELDS) Team, EPA, to Thomas Alcamo, Remedial Project Manager, EPA (Oct. 12, 2016)

Using Arsenic XRF for Decision-Making at USS Lead Zone 3

FIELDS group

Chuck Roth

John Canar

Courtney Reents

10/12/2016

In order to meet the remediation objectives of 400 ppm for lead, the FIELDS group recommended action levels for lead to be 400 ppm when lab results are available and 325 ppm for the maximum XRF reading when only XRF results are available. To meet the remediation objectives of 26 ppm for Arsenic, the action levels are 26 ppm when lab results are available and 26 ppm for the maximum XRF reading when only XRF results are available. FIELDS also recommended resampling any yards with only XRF results where the Arsenic minimum XRF results were >26 ppm but <37 ppm.

A linear regression of XRF to lab did not provide a robust model to estimate equivalent lab values from the XRF readings. The regression analysis, not discussed in detail here, is not likely to produce useful decision values for Arsenic or for Lead. Although there is a statistically significant regression correlation between the XRF Arsenic values and the equivalent Lab Arsenic values, the prediction intervals are very large. (The prediction interval is a measure of the confidence one has in future measurements, a good indicator of a regression model's quality). The reasons for that may have been due to a heterogeneous distribution of the contaminant or soil matrix, poor mixing before measuring, or due to sampling issues (sample volumes collected vs. volumes sent to the lab).

An alternative analysis, since there are over 1000 comparisons between XRF and lab, was to assess the error rate when using the XRF to estimate the true soil concentration. Each sample with lab results had three XRF readings and either one or two lab results (from different labs). The maximum lab result was used to compare to the maximum XRF reading for each sample. The maxXRF was used because it is the most conservative estimate of the true soil concentration in the absence of lab results (keeping in mind that the lab result is also an estimate of the true soil concentration) and provided the best false negative rate near the critical values (26 ppm for Arsenic). See Table 1 for the Error Rates for Arsenic.

Table 1. The false negative and false positive rates when comparing the maximum XRF readings to the laboratory results.

Arsenic Action Level =26 ppm	False Negative Rate	False Positive Rate
XRF decision criteria = 42ppm	52.5%	10.3%
XRF decision criteria = 40ppm	44.7%	12.2%
XRF decision criteria = 38ppm	38.1%	15.4%
XRF decision criteria = 36ppm	34.6%	20.9%
XRF decision criteria = 34ppm	28.8%	26.2%
XRF decision criteria = 32ppm	22.6%	32.6%
XRF decision criteria = 30ppm	16.3%	41.1%
XRF decision criteria = 28 ppm	11.7%	51.9%
XRF decision criteria = 26 ppm	5.1%	63.4%
XRF decision criteria = 24 ppm	3.5%	75.6%
XRF decision criteria = 22 ppm	1.6%	87.4%
XRF decision criteria = 20 ppm	0.4%	98.1%

There is a 5% false negative rate at an action level of 26 ppm Arsenic when using the maximum XRF reading of 26 ppm for a sample (compared to a 7% error rate for lead with XRFmax at 325 ppm). (A false positive is when the XRF says the lab value is below 26 ppm but the lab result is actually ≥ 26 ppm).

Given a false negative rate between XRF and lab values of 5%, it is expected that 5% of the time, when a maxXRF for Arsenic is less than 26 ppm and no lab result is available, we would make an incorrect decision in saying no further action. However, the decision is for only one layer of the yard (0-6, 6-12...). When deciding if an entire yard requires no further action each layer sampled is assessed to determine if all layers are expected to be < 26 ppm. This means that if, for example, 0-6 inches and 6-12 inches have true soil concentrations ≥ 26 ppm the probability of determining the yard to not need remediation when it actually needed to be remediated to be $0.05 \times 0.05 = 0.025$ (.25%). In addition, the assessment includes determining if the lead concentration is above the action level. In the above example, even if only one of the layers had lead above 400 ppm the probability of determining that the yard does not need remediation is $0.05 \times 0.05 \times 0.07 = 0.000175$ (0.0175%).

The false positives when using the maxXRF reading of 26 ppm is high ($>60\%$). In order to reduce the number of false positives yards where there were only XRF readings for Arsenic were resampled if the minXRF concentration was >26 ppm but <37 ppm. This reduces the rate of false positives to fewer than 20%. Additionally, of the yards that have been determined to need remediation (380 yards), 20% (78) have only Arsenic exceeding the decision criteria (9% of the 833 yards)(Table 2). Of the 78 yards with remediation based on Arsenic only, fewer than 5%

are based on XRF results alone (also some of which will be resampled if they fall between 26ppm and 37 ppm).

Table 2. Counts and percentages of yards/properties that need remediation and, of those yards/properties, counts and percentages based on the contaminant necessitating remediation (lead, arsenic, or both).

For Lead 400ppm (325ppm XRF) and Arsenic 26ppm	Total Properties Requiring Remediation		Remediation Properties for Arsenic Only		Remediation Properties for Lead or Both	
By yards:	Count	Percent	Count	Percent	Count	Percent
	380/833	46%	78/380	20.5%	302/380	79.5%
By properties:	Count	Percent	Count	Percent	Count	Percent
	247/410	60%	42/247	17%	205/247	83%

- At the **yard** level, 46% of **yards** require some form of remediation, due to the presence of lead, arsenic, or both. Of the yards that require remediation, **20.5%** of these yards require remediation for arsenic only, while the remaining 79.5% of these yards require remediation either for lead alone or for lead and arsenic both.
- At the **property** level, 60% of **properties** have at least one yard or quad requiring some form of remediation, due to the presence of lead, arsenic, or both. Of the properties with at least one yard or quad requiring remediation, **17%** of these properties require remediation for arsenic only, while the remaining 83% of these properties require remediation either for lead alone or for lead and arsenic both.

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Attachment A-9 to Douglas Ballotti Declaration:
Example USS Lead Remedial Design Drawing

Final Design

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Sample Data

Depth	Front - Lead	Front - Arsenic	Back - Lead	Back - Arsenic
0-6 inches	690 J	40 U	3488	68
6-12 inches	780 J	25	340 J	16
12-18 inches	433 J	42	292	18
18-24 inches	590	15	Native Sand (NS)	Native Sand (NS)
24-30 inches	148	19	Native Sand (NS)	Native Sand (NS)

J - Estimated / U - Non-Detect

Sampling Notes

Front: 1: 30+ 2: 30+ 3: 30+ 4: refusal@20" 5: sand@18"

Back: 1: sand@17" 2: sand@12" 3: sand@13" 4: sand@12" 5: sand@17"

Design Notes

Excavation depth is 24 inches for the front yard.
Excavation depth is 6 inches for the back yard.All material in the front yard is considered Type-1 waste.
All material in the back yard is considered Type-1 waste.Type-1 waste exceeds toxicity criteria.
Type-2 waste fails toxicity criteria.

Design Information

Access agreement: 3/27/2015

Date sampled:

F: 5/4/2015 3:00:00 PM

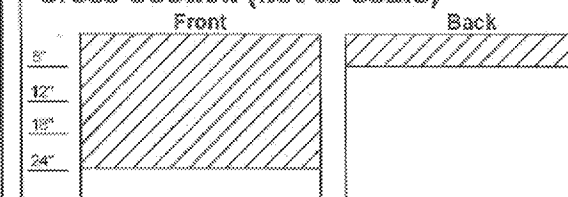
B: 5/6/2015 9:30:00 AM

Date restoration agreement:

Quantities

	Units	Front Yard	Back Yard
Type-1	cu yd	282	46
Type-2	cu yd	0	0
Total	cu yd	282	46
Soil	sq yd	423	278
Barrier		No	No

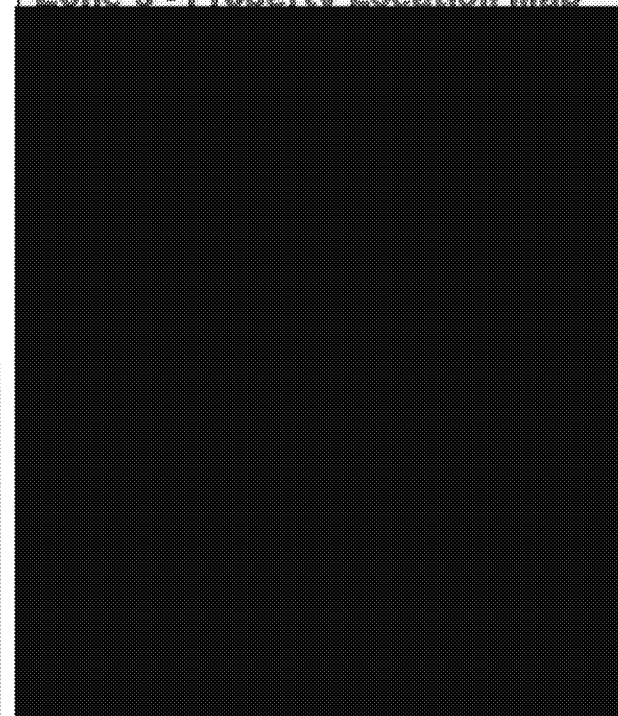
Cross Section (not to scale)



Legend

- Property Boundary
- Yard Boundary
- Only Type-1 Waste Present
- Type-2 Waste Present
- Visual Barrier
- START Remediated to 24"
- Tree (Trunk Diameter in Inches)
- Tree Canopy
- Bushes

Zone 3 - Property Location Map



Revisions/Review

#	Date	Drawn By	QC'd By	Date

US SMELTER & LEAD REFINERY
LAKE COUNTY, EAST CHICAGO, INDIANA

EPA REGION 5 RAC 2

Date Created: 9/15/2015

ST SuITRAC

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-10 to Douglas Ballotti Declaration:
EPA, *Pollution/Situation Report #49* (Nov. 2, 2016)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
USS Lead Response - SitRep #49



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 5

Subject: SitRep #49
USS Lead Response
East Chicago, IN

To: U.S.S. Lead Response Distribution List

Through: Jeff Kimble, Incident Commander
From: Molly Finn, Situation Unit Leader

Date: 11/2/16
Reporting Period: 10/31/16, 1500 hours – 11/2/16, 1500 hours



First Residential Property Excavation in Zone 2

(Credit: Dan Haag, November 2, 2016)

Section 1: Introduction & Site Background

The U.S. Smelter and Lead Refinery, Inc. (USS Lead) site is located in East Chicago, Lake County, Indiana. A copper smelter, lead refinery and secondary lead smelter operated on-site from the 1920s to 1985. Smelting operations volatilized metals including lead and arsenic. Some lead-containing dust was wind deposited on the area soils during these operations. Blast furnace slag was stockpiled south of the plant building and spread once a year over an adjoining wetland south of the Site. The primary contaminants of concern are lead and arsenic which are present in exposed soils and subsequently could be tracked into the area residences.

EPA listed the USS Lead site to the National Priorities List (NPL) in 2009. The site includes part of the former USS Lead facility along with nearby commercial, municipal and residential areas. The overall site has been divided into three zones. The Removal Program is currently addressing soil and residential contamination in Zone 1 and specifically at the West Calumet Housing Complex (WCHC). Mulch has been placed over all exposed soils at the WCHC. Indoor sampling has been conducted in a subset of WCHC homes and analytical results are being validated. Teams have been mobilized to communicate directly with residents, develop temporary relocation procedures, develop cleaning procedures, and initiate outdoor sampling. The Remedial Program is currently collecting samples in Zones 2 and 3, and the analytical results will be evaluated for other potential areas needing remediation.

EPA is working in a Multi-Agency Coordination Team with the City of East Chicago, the East Chicago Housing Authority (ECHA), the State of Indiana, the Agency for Toxic Substances and Disease Registry (ATSDR), and the Department of Housing and Urban Development (HUD).

1.1 Incident Command Post

The U.S. EPA Incident Command Post (ICP) is located in the Carrie Gosch Elementary School at 455 E 148th St, East Chicago, IN 46312. The staging area for the response is located at E. 149th Place and McCook Avenue, East Chicago, IN 46312.

1.2 Objectives

- Ensure health and safety of the public and response personnel.
- Provide and manage necessary communications, both internally and externally.
- Continue home cleaning and temporary relocation for residents in Zone 1.
- Continue sampling, as appropriate, in all zones.
- Conduct soil excavation, backfill, and restoration in Zones 2 and 3.
- Effective command, communications and control from job-site to Region 5 and EPA HQ.
- Manage media inquiries for accuracy and relay contamination results/lead levels to families.
- Effective temporary relocations for families with minimal disruptions to daily lifestyle.
- Continue planning for future demobilization.

1.3 Staffing

As of 1500 hours, 157 people were checked in either on site or in the EOC today. For more detailed staffing information, see **Section 3: Metrics Table** or **Appendix B: Organizational Chart**.

Section 2: Activities during Reporting Period

2.1 Incident Command

- Attended OPS call with EPA senior management and HQ at 0900 on 11/1/16.

- Attended East Chicago report out with Command and General Staff and Regional Management at 1500 on 11/2/16.

2.2 Sampling Team

- Collected indoor dust samples at one residence in Zone 3.
- All six air monitoring locations are in place and operating.

2.3 Community Involvement Team

- For the reporting period, total contacts as of 1500 is 86 for all zones (including walk-ins, outgoing calls, home visits, and incoming calls).
- Answered the EPA hotline (219-801-2199).
- Scheduled one appointment with residents for relocation interviews.
- Scheduled six appointments with residents for dust sampling.

2.4 Interview/Relocation Team

- Completed one interview and one residence agreed to house cleaning.
- Ten families currently on temporary relocation.
- As of 10/28/16, EPA has made contact with all 350 units in Zone 1. All have either been scheduled for cleaning, refused EPA cleaning, or cleaning has been completed. All cleaning is expected to be completed by Friday 11/4/16.
- All 14 of the households currently relocated are expected to be moved back in by Saturday 11/5/16, completing the relocation and cleaning process.

2.5 Liaison

- No liaison activities conducted this reporting period.

2.6 Public Information

- On Tuesday 11/1/16, EPA videographer was onsite capturing response activities.

2.7 Safety

- No injuries or illness reported this period.
- Routine site safety inspections and monitoring continuing as required.
- On Wednesday, 11/2/2016 Regional Health provided an interactive workshop and debriefing session for onsite staff that addressed cumulative stress, tactics on how to de-escalate situations, and skills for working in an emergency response/crisis area.

2.8 Finance

- Reminder to check the R5EOC email from 8/29/16 at 1038 for USS Lead Deployment accounting codes. Do not use 2016 accounting codes!
- If you have any questions regarding site costs, contact the Incident Commander, Jim Mitchell.

2.9 Remedial (Zones 2 & 3)

- EPA continues to receive validated results for soil sampling in Zone 2.

- Excavation has started at over half the total number of properties planned for this year in Zone 3, and half will be completed in the next few days.
- During the reporting period, collected one Access Agreement in Zone 3.
- As of 1500, 438 properties have been sampled in Zone 2 and 416 in Zone 3.
- Zone 2 updates:
 - One priority site scheduled an indoor dust sampling appointment.
 - Indoor dust samples were collected at one priority site.
 - Property pre-elevation surveys are being conducted.
 - During the reporting period, one access agreement was signed in Zone 2.
 - Yard excavations began on 11/1/16, with 80 cubic yards of soil removed.

2.10 Data Management

- Continued daily data loading and GIS webviewer development.
- Coordinated with START Contractor (SRS) equipment logistics requirements to perform air monitoring and sampling in Zone 3.
- Continued development of i-forms to support field remediation activities.

Section 3: Metrics Table

Area of Sites	Zone 1		Zone 2		Zone 3		Total	
Metric	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total
Community Involvement								
Interactions with Residents in Zones 1-3 (walk-ins, outgoing/incoming calls, home visits, etc.); includes multiple contacts with the same people								1396
Temporary Relocation								
Relocation Interviews Conducted	1	1					1	263
Cleaning Access Agreements Signed	1	1					1	263
Declined Cleaning	-	-					-	37
Currently Relocated Residences	14							
Homes Cleaned	-	-					-	259
Belongings Cleaned (No relocation)	0	0					0	3
Households Returned Home	-	-					-	253
Vacant Units Per ECHA	-	-					-	28
Outdoor Soil Sampling								
Total Properties		-		596		468	-	1064
Total Priority Properties (1200 Pb/68 As)	-	-	3	28	-	39	-	67
Access agreement signed (outdoor soil sampling)	-	-	2	489	1	419	3	910
Access denied	-	-	-	6	-	16	-	22
Not yet contacted	-	-	-	101	-	33	-	134
Properties Soil Sampled	-	-	8	438	-	416	8	854
Indoor Dust Sampling								
Properties Scheduled for Indoor Dust Sampling Appointments	1	246	1	-	2	-	4	249
Total Properties with Indoor Dust Samples Collected*	1	270	2	11	2	26	5	307

Area of Sites	Zone 1		Zone 2		Zone 3		Total	
Metric	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total
Residences Verbally Contacted about Sampling Results Prior to Mailing Letters	-	-	-	-	-	-	-	131
Result Letters Sent to Residents	-	211	-	3	-	2	-	216
Pre-Excavation Tap Water Sampling (Priority Property)								
Access denied			1	1	-1	2	1	3
Properties with Tap Samples Collected			0	8	1	32	1	40
Properties provided bottled water			0	0	0	21	0	21
Water Sampling Not Applicable (e.g., vacant lot, apartment building)			0	6	0	1	0	7
Remedial Action (Priority Properties only for Zones 2 and 3)**								
Total properties targeted for remedial action (Excavation, Backfill, restoration)			-	16	-	39	-	55
Access Agreements Signed			1	13	6	38	7	13
Access denied			1	1	0	0	1	1
Properties with Excavation completed			0	0	2	18	2	18
Volume of Soil removed (cubic yards)			80	80	225	3961	305	4041
Properties with back-fill completed			0	0	1	13	1	13
Properties with topsoil completed			0	0	0	12	0	12
Properties with restoration completed			0	0	0	12	0	12
Properties that meet maintenance period end date (30 days after restoration)			-	-	-	-		0
Post-Excavation Tap Water Sampling (Priority Property)								
Properties with Post-Excavation Tap Samples Collected			0	0	0	6	0	6
Properties provided with a water filter			0	0	0	6	0	6

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Area of Sites	Zone 1		Zone 2		Zone 3		Total	
Metric	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total	Reporting Period Total (10/31/16 – 11/2/16)	Cumulative Total
Residences Verbally Contacted about Final Water Results Prior to Mailing Letters			-	-	-	-	-	-
Samples that exceed lead (15ppb) or copper (1.3ppm)			-	-	-	-	-	-
Post-Excavation Tap Water Result Letters Sent to Residents			-	-	-	-	-	-
Final Inspection (Priority Properties for Zones 2 and 3)								
Final Inspection Complete			-	-	-	-	-	-
Residences Verbally Contacted about Final Inspection Results Prior to Mailing Letters			-	-	-	-	-	-
Completion Letters Sent to Residents			-	-	-	-	-	-
Personnel								
EPA on-Site							16	
Coordinating Agency on-site							1	
Indiana State Department of Health							-	
Contractors/other personnel							140	
EPA in Emergency Operations Center (EOC)							0	
Total							157	

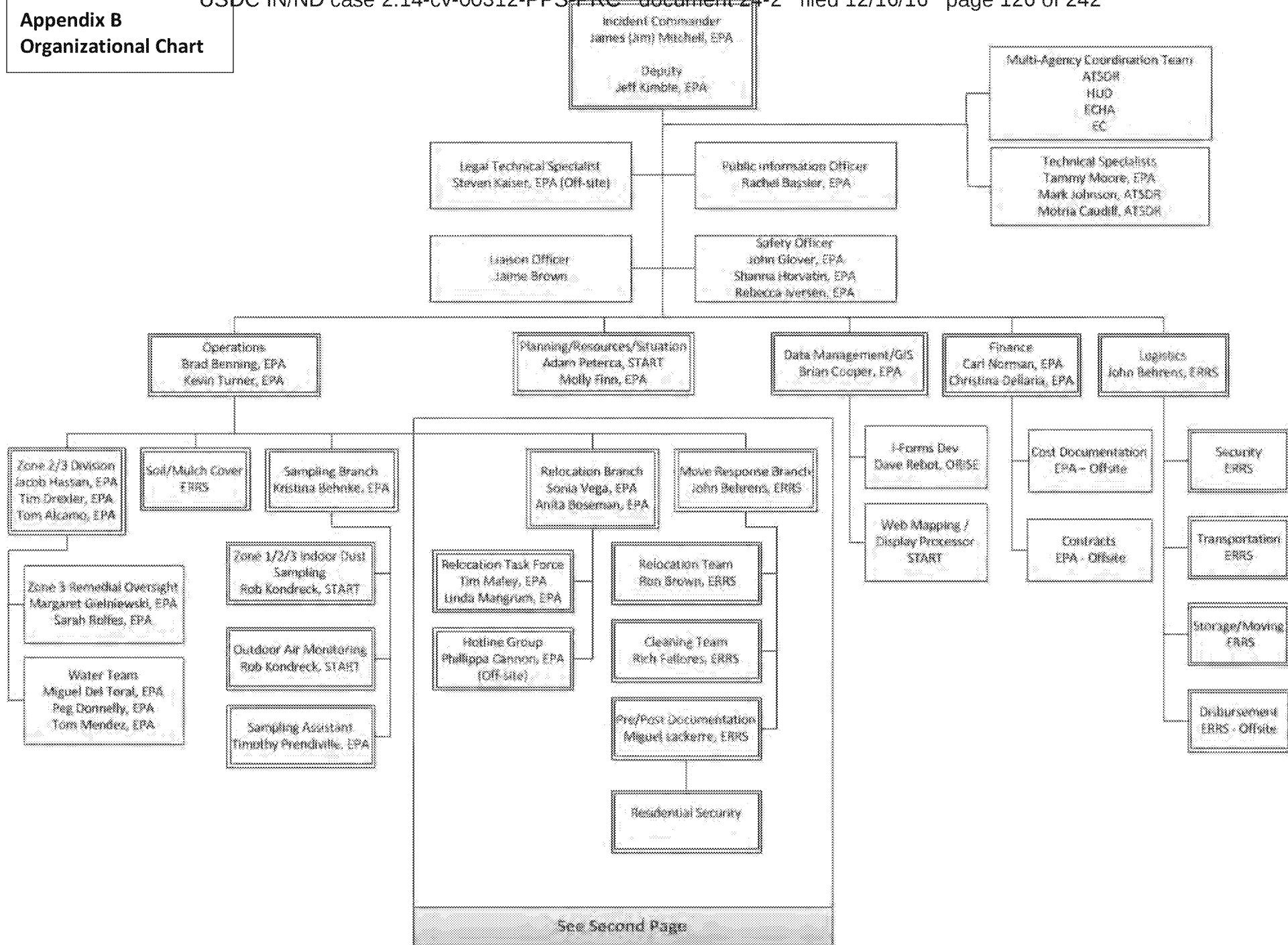
Section 4: Definition of Terms

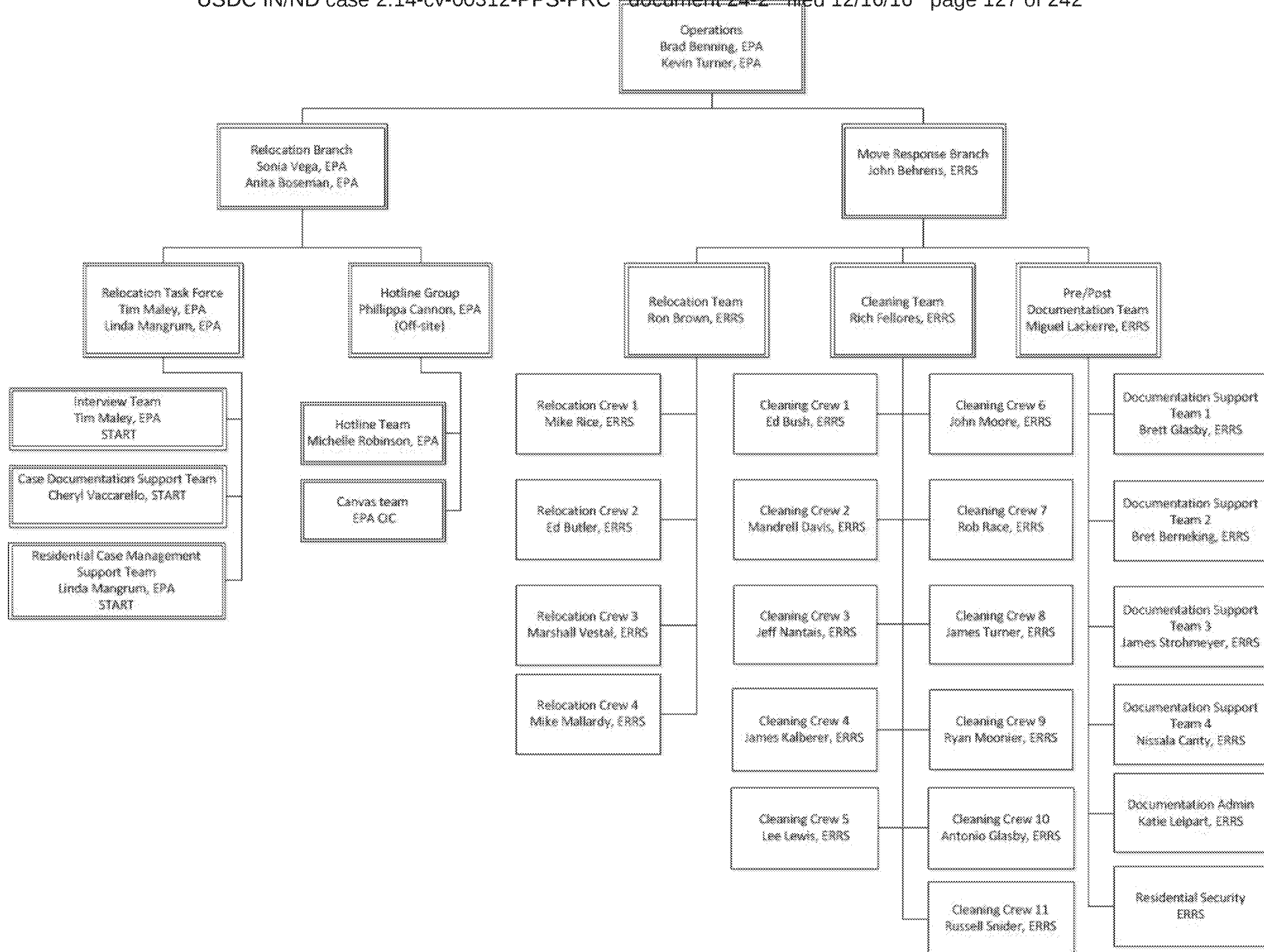
Acronym	Definition
ATSDR	Agency for Toxic Substances and Disease Registry
DOJ	Department of Justice
ECHA	East Chicago Housing Authority
EDD	Electronic Data Deliverable
EOC	Emergency Operations Center
ERRS	Emergency Rapid Response Services
EPA	United States Environmental Protection Agency
HUD	Department of Housing and Urban Development
ICP	Incident Command Post
ISDH	Indiana State Department of Health
ORC	Office of Regional Counsel
NPL	National Priority List
PII	Personally Identifiable Information
SitRep	Situation Report
START	Superfund Technical Assessment and Response Team
WCHC	West Calumet Housing Complex
U.S.S Lead	U.S. Smelter and Lead Refinery, Inc.
XRF	X-ray Fluorescence

Appendix A Site Diagram



Appendix B Organizational Chart





United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-11 to Douglas Ballotti Declaration:

Memorandum, *Development of an Indoor Dust Screening Criteria for the USS Lead Site*, from Keith Fusinski, Toxicologist, EPA, to Jim Mitchell, On-Scene Coordinator, EPA (Aug. 10, 2016)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
 9311 GROH ROAD
 GROSSE ILE, MI 48138

MEMORANDUM

SUBJECT: Development of an Indoor Dust Screening Criteria for the USS Lead Site

FROM: Keith Fusinski, PhD Toxicologist US EPA
 Superfund Division, Remedial Response Branch #1, Remedial Response Section #1

TO: Jim Mitchell, On-Scene Coordinator US EPA
 Superfund Division, Emergency Response Branch #2, Emergency Response Section #4

AND

Kristina Behnke, On-Scene Coordinator US EPA
 Superfund Division, Emergency Response Branch #2, Emergency Response Section #3

DATE: 8/10/2016

The Integrated Exposure Uptake Biokinetic (IEUBK) model used by the US Environmental Protection Agency (USEPA) uses the concentration of indoor dust as a key parameter to evaluate risks to children from lead in soil. EPA separates dust into fine ($<150\ \mu\text{m}$) and coarse ($>150\ \mu\text{m}$) fractions. It has been shown that the fine particle size is the fraction that is most likely to adhere to children's hands and be ingested. In addition, more recent information also indicates that there is a potential for enrichment of lead in smaller sized particles and increased bioavailability (USEPA 2016). Using only the fine particle size concentration for screening can improve the accuracy of exposure and risk calculations in lead risk assessments.

The IEUBK model (version 1.1 Build 11) was used to determine an indoor dust screening level for lead. The default assumption in the model is that the concentration of lead in indoor dust is 70% of the concentration of lead in outdoor soil (Brattin and Griffin - 2011). US EPA recommends that lead concentrations in residential soil do not exceed 400 parts per million (ppm) in soil.

The modeling was performed using default inputs from the IEUBK model for diet, drinking water, air concentration and bioavailability. The IEUBK model was run using 400 ppm for lead in soil and modeled children 0 to 84 months of age. The calculated screening level to protect this population from a current US EPA acceptable blood lead level of $10\ \mu\text{g/dL}$ is **316 ppm** of lead in

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-12 to Douglas Ballotti Declaration:

Memorandum, *Justification for Using Site-Specific Arsenic Background Concentration in Soil for Indoor Dust Screeing Concentrations for the USS Lead Site*, from Keith Fusinski, Toxicologist, EPA, to Jim Mitchell, On-Scene Coordinator, EPA (Dec. 13, 2016)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
 9311 GROH ROAD
 GROSSE ILE, MI 48138

MEMORANDUM

SUBJECT: Justification for Using Site-Specific Arsenic Background Concentration in Soil for Indoor Dust Screening Concentration for the USS Lead Site.

FROM: Keith Fusinski, PhD Toxicologist US EPA
 Superfund Division, Remedial Response Branch #1, Science and Quality Assurance Section

TO: Jim Mitchell, On-Scene Coordinator US EPA
 Superfund Division, Emergency Response Branch #2, Emergency Response Section #4

AND

Kristina Behnke, On-Scene Coordinator US EPA
 Superfund Division, Emergency Response Branch #2, Emergency Response Section #3

DATE: 12/13/2016

The US EPA looks at both cancer and non-cancer detrimental effects of exposure to contaminants. For non-cancer, EPA determines probability of a detrimental health effect to occur by calculating a hazard quotient (HQ). The HQ is a ratio of a single substance exposure level over a specified period of time to a reference dose of the same substance derived from a similar exposure period. It is recommended that the HQ of an exposure to a chemical of concern be below or equal to 1 which is the level at which no adverse human health effects are expected to occur. For cancer risk, the U.S. EPA recommends a screening level that would equate to a one in a million (1×10^{-6}) or greater lifetime risk of developing cancer from exposure to a contaminated site. However, rates up to 1 in 10,000 (1×10^{-4}) can be considered acceptable. Regional screening levels (RSLs) are based upon an excess lifetime cancer risk (ELCR) of 1×10^{-6} or an HQ of 1, whichever is most protective. The Office of Land and Emergency Management (OLEM) recommends removal management levels (RMLs) be set at an excess lifetime cancer risk of 1 in 10,000 or a non-cancer HQ of 3, whichever is most protective. Risks found between the RSLs and RMLs are remediated at the discretion of EPA risk managers. Risks greater than the RML, typically require remediation.

The residential RSL for arsenic in soil is 0.68 mg/kg. The residential RML for soil is 68 mg/kg. These values are highly protective and are based upon an individual working or playing in the soil for 24 hours a day, for 350 days per year for 26 years. This includes the first 6 years of life, where children are most susceptible to developmental effects of contaminant exposure. Routes of exposure in these calculations include ingestion, inhalation, and dermal contact. Any concentration

of arsenic in soil less than 68 mg/kg is considered within EPA's acceptable risk range and protective of human health.

House dust is composed of small amounts of plant pollen, human and animal hairs and skin cells, textile fibers, paper fibers, outdoor soil, and many other materials which may be found in the local environment. It is important to note that only a fraction of house dust actually comes from exterior soils. However, in order to be protective of human health, US EPA will assume that 100 percent of house dust at the USS Lead Site comes directly from exterior soil degradation.

Arsenic is a naturally occurring substance and can be found in soils all across the US at some concentration. This is considered naturally occurring background. The site specific background concentration for arsenic in soils at the USS Lead site has been determined to be 26 milligrams of arsenic per kilogram of soil (mg/kg). This value is well below the residential soil RML of 68 mg/kg. As US EPA is assuming that 100 percent of house dust comes from exterior soils, then it can be considered that 26 mg/kg is not only the background in exterior soils, but also residential house dust.

When evaluating homes for remediation, or to review the effects of remediation, any home with concentrations of arsenic below 26 mg/kg should be considered below background concentrations and safe for unrestricted residential use.

dust. This concentration should be used when evaluating the fine particle size fraction of lead dust contamination.

REFERENCES

Brattin and Griffin - 2011 - William Brittin, Susan Griffin. Evaluation of the Contribution of Lead in Soil to Lead in Dust at Superfund Sites. Human and Ecological Risk Assessment: An International journal Vol. 17, Iss. 1, 2011.

USEPA 2016 - OLEM Directive 9200.1-128. Recommendations for Sieving Soil and Dust Samples at Lead Sites for Assessment of Incidental Ingestion.

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-13 to Douglas Ballotti Declaration:
EPA, *Temporary Relocation Operations Plan*, West Calumet Housing Complex (Oct. 2016)

**Temporary Relocation Operations Plan
for the
West Calumet Housing Complex
East Chicago, Indiana**



EMERGENCY RESPONSE DIVISION
U.S. EPA Region 5

October 2016
Version 1.1

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- 2 TEMPORARY RELOCATION AGREEMENT
- 3 APPLICATION FOR SCHOOL BUS TRANSPORTATION
- 4 PER DIEM NOTIFICATION LETTER
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- 6 GENERAL PACKING INSTRUCTIONS
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Appendices

- Appendix A – Organizational Chart
 Appendix B – Residents’ Guide to Temporary Relocation
 Appendix C –List of Hotels Under Contract for Temporary Housing
 Appendix D –List of Local and Emergency Resources

LIST OF ACRONYMS

Anaconda	Anaconda Copper Company
ATSDR	Agency for Toxic Substances and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
Complex	West Calumet Housing Complex
CWA	Clean Water Act
DOT	Department of Transportation
DuPont	DuPont de Nemours Company
EO	Executive Order
ERRS	Emergency and Rapid Response Services
HHID	Household Identification
HOH	Head of Household
HUD	Housing and Urban Development
IC	Incident Commander
ICP	Incident Command Post
IDEM	Indiana Department of Environmental Management
ISDH	Indiana State Department of Health
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
OPA	Oil Pollution Act of 1990
ORC	Office of Regional Counsel
OSC	On-Scene Coordinator
OU	Operable Unit
PIO	Public Information Officer
PPE	Personal Protection Equipment
RCM	Residential Case Management
SITL	Situation Leader
SitREP	Situation Report
START	Superfund Technical Assessment and Response Team
UCG	Unified Command Group
URA	Uniform Relocation Assistance and Real Property Acquisition Policies Act
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
U.S. EPA	United States Environmental Protection Agency
USS Lead	U.S. Smelter & Lead Refinery, Inc.

Temporary Relocation Operations Plan for the West Calumet Housing Complex

East Chicago, Indiana

1. BACKGROUND

1.1 Introduction

This Temporary Relocation Operations Plan provides a guide to the U.S. Environmental Protection Agency (U.S. EPA) staff and contractors to implement and administer a temporary relocation program at the West Calumet Housing Complex (Complex), East Chicago, Indiana. The project involves possible temporary relocations of 346 households, each for approximately five to seven days, during the cleaning of these homes.

Temporary relocation and cleanup activities are being performed by employees and authorized representatives (agents, contractors, and subcontractors) of U.S. EPA. Many other government agencies and social service organizations are also providing assistance with this overall project including the Indiana Department of Environmental Management (IDEM), the Indiana State Department of Health (ISDH), Agency for Toxic Substances and Disease Registry (ATSDR), the United States Coast Guard (USCG) and the United States Army Corps of Engineers (USACE).

1.2 Authority

The National Contingency Plan (NCP) authorizes a network to respond to the release of hazardous substances under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Clean Water Act (CWA), and the Oil Pollution Act of 1990 (OPA). Under the NCP, U.S. EPA has primary responsibility for both Federal response to inland hazardous substances releases and also for coordinating interagency support during a Federal response. U.S. EPA's On-Scene Coordinators (OSCs) are authorized to organize all resources for Federal containment, removal, and disposal efforts during a response action.

When an OSC determines that the activities at a response action will impact members of the local residential population, U.S. EPA is authorized under Executive Order (EO) 13016 amendment to EO 12580, Superfund Implementation, to temporarily relocate the threatened individuals as part of the removal action. Temporary relocation may be necessary to ensure the health and safety of persons impacted by a hazardous substance release. In some cases, temporary relocation may also be necessary to allow U.S. EPA or its agents to conduct the necessary cleanup activities.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), 42 U.S.C. Section 4601, was enacted in 1971 to ensure uniform and equitable treatment of persons who may be displaced from their homes and businesses during Federal programs such as disaster relief or national emergencies, or as a result of projects involving acquisition of private property (e.g. the construction of Federally-funded highways). URA provides for the issuance of relocation benefits to persons displaced in such actions. In 1987, URA was amended to expand

the scope of benefits, and the U.S. Department of Transportation (DOT) was designated as the lead agency for implementing URA. The uniform regulations that were developed and issued by DOT, 49 Code of Federal Regulations (CFR) Part 24, are concerned primarily with the implementation of permanent relocations. However, URA regulations, 49 CFR Section 24.2, Appendix A, provide requirements for temporary relocations.

1.2.1 Guiding Principles

The following requirements serve as guiding principles to help U.S. EPA representatives make decisions about appropriate temporary relocation assistance for residents:

- The Agency should ensure fair and equitable treatment of people who are being temporarily relocated.
- Residents should be compensated for actual, reasonable, and necessary out-of-pocket expenses. In most cases, residents must first incur expenses to be entitled to reimbursement. Residents are not entitled to compensation for expenses that are never incurred.
- Residents are entitled to temporary housing that is, at a minimum, decent, safe, and sanitary.

The U.S. EPA *Superfund Response Actions: Temporary Relocations Implementation Guidance* notes that temporary relocations present special challenges, both to the affected individuals and to administrative personnel, and that temporary relocation can be particularly disruptive to the persons being displaced. The guidance further notes that U.S. EPA is responsible for ensuring that persons being relocated as part of U.S. EPA response actions are treated within the spirit and intent of URA, so that the affected individuals do not suffer undue hardship as a result of being temporarily displaced by U.S. EPA-funded activities.

1.3 Site Location

The Complex consists of 346 residences in the city of East Chicago, Indiana (see Figure 1).

1.4 Site Background

The U.S. Smelter & Lead Refinery, Inc. (USS Lead) site is located in East Chicago, Lake County, Indiana. A copper smelter, lead refinery and secondary lead smelter operated on site from the 1920s to 1985. Smelting operations volatilized metals including lead and arsenic. Some lead-containing dust was wind deposited on the area soils during these operations. Blast furnace slag was stockpiled south of the plant building and spread once a year over an adjoining 21-acre wetland south of the Site. The primary contaminants of concern are lead and arsenic, which are present in exposed soils and subsequently could be tracked into the area residences.

U.S. EPA listed the USS Lead site to the National Priorities List (NPL) in 2009. The 79-acre site includes part of the former USS Lead facility along with nearby commercial, municipal and residential areas. The southern industrial area has been designated as Operable Unit (OU) 2 and the residential area to the north is OU1. OU1 has been divided into three zones. The Removal Program is currently addressing soil and residential contamination in Zone 1 and specifically at the Complex. Mulch has been placed over all exposed soils at the Complex. Indoor sampling has been conducted in a subset of Complex homes and analytical results are being validated.

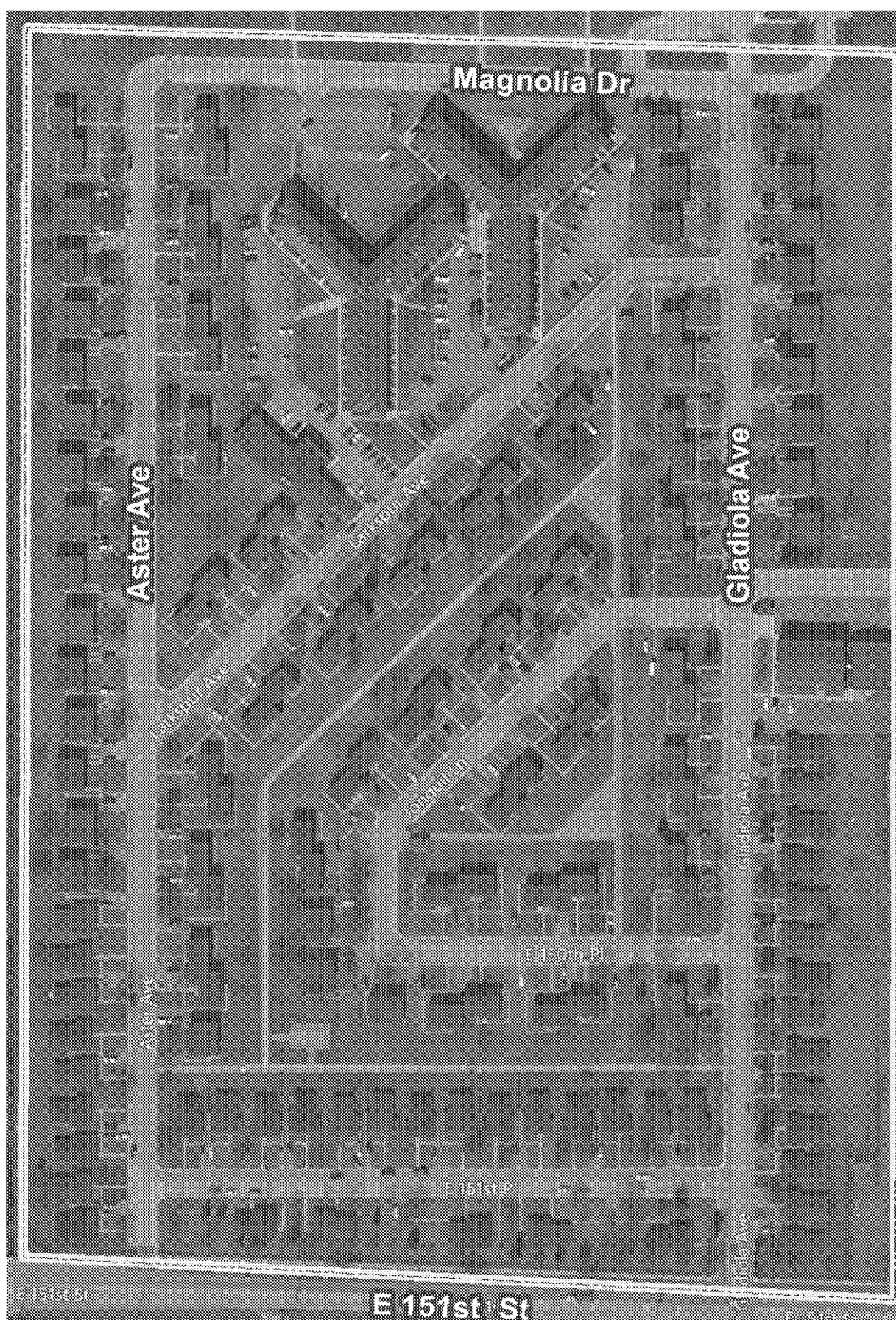


Figure 1. Site Location Map

U.S. EPA has committed to clean any homes for which access is granted. Teams have been mobilized to communicate directly with residents, develop temporary relocation procedures, develop cleaning procedures and initiate outdoor sampling. The Remedial Program is currently collecting samples in Zones 2 and 3, and the analytical results will be evaluated for other potential areas needing remediation. In addition to the USS Lead facility, there are several other potential sources of lead and arsenic contamination in the residential area, including the former Anaconda Copper Company (Anaconda) site and the E.I. DuPont de Nemours Company (DuPont) facility. Anaconda occupied the area along the Indiana Harbor Canal where the Carrie Gosch Elementary School and the public housing residential complex immediately south of the school are currently located (Zone 1). The Anaconda site manufactured white lead and zinc oxide, and refined metal. The DuPont facility, which was located south of the USS Lead site and east of the former USS Lead facility, manufactured the pesticide lead arsenate.

2. POLICY

2.1 Determination of Need for Temporary Relocation

According to U.S. EPA's *Superfund Response Actions: Temporary Relocations Implementation Guidance*, the U.S. EPA OSC makes the determination of the need for relocations that are carried out in conjunction with Superfund removal actions. The determination of a need for a removal action will be documented in the action memorandum for the Complex site. The potential exists for these homes to contain elevated levels of lead and/or arsenic in them, most likely transferred from contaminated soils around the properties. U.S. EPA has committed to cleaning any residence for which access is granted. The residents will have to be temporarily relocated in order for U.S. EPA to clean the home. Because of the hazards associated with continued exposure to lead, and because cleanup of the affected residential properties requires intrusive measures (e.g. HEPA vacuuming, steam cleaning, offsite cleaning, wet wiping, washing and mopping the residence and its contents), the action memorandum documents a determination of the need for temporary relocation of the residents of those properties. The decision to temporarily relocate the affected residents was made by the U.S. EPA, in consultation with ATSDR and members of the Unified Command Group (UCG).

2.2 Determination and Prioritization of Households to be Temporarily Relocated

Under U.S. EPA guidance for temporary relocations, the OSC determines the site boundaries at a Superfund site or removal action, and may request technical assistance from ATSDR/CDC in determining which persons will require relocation. At this time, relocation efforts are being focused on the Complex and not the surrounding zones of the USS Lead site.

At the Complex, the U.S. EPA used Housing and Urban Development (HUD) information provided by ATSDR to identify persons most at risk, such as pregnant women, children under six years of age, and children who have tested positive for high blood lead levels. U.S. EPA is going door-to-door asking residents most at risk if they would like to schedule an interview to learn more about having their home cleaned. The risk management criteria were developed in consultation with representatives of ATSDR. The goal is to reduce the risk to the most exposed groups through emergency relocation and deep cleaning of their residences.

3. U.S. EPA PROJECT STAFFING FOR RELOCATION ACTIVITIES

Various U.S. EPA representatives will be assigned to oversee the complex aspects of the removal actions. Three principal OSCs have been assigned to oversee the various aspects of the removal action: incident command, relocation activities, and other site operations. See Appendix A for an organizational chart.

3.1 Incident Command Post

The U.S. EPA Incident Command Post (ICP) is located at the Old Carrie Gosch School, 455 E. 148th Street in East Chicago, Indiana.

3.1.1 Incident Commander

The Incident Commander (IC) is responsible for overseeing the objectives of the project, which include:

- Ensuring the health and safety of the public and response personnel.
- Providing and managing necessary communications, both internally and externally.
- Initiating plans to sample, clean homes, and temporarily relocate residents in Zone 1.
- Coordinating activities with the UCG.
- Coordinating site visits with U.S. EPA management.
- Developing staffing plans and responsibilities.
- Coordinating with congressional representatives and other interested parties.
- Ensuring data results are communicated to residents.
- Ensuring all staff prepares and maintains records to support enforcement and cost recovery activities.
- Updating Situation Leader (SITL) regularly on all activities conducted.

3.1.2 Operations Section Chief/Deputy Operations Section Chief

The Operations Section Chief and Deputy Operations Section Chiefs are responsible for the following activities:

- Overseeing and managing all functions under operations including mulch/mulch maintenance, indoor sampling, and outdoor air monitoring/sampling, relocating residents, and cleaning of residential units.
- Conducting operational briefings with operational staff.
- Developing operations portion of the Incident Action Plan.
- Determining need for additional resources and communicating them to the Resource Unit Leader.
- Interacting with the Emergency and Rapid Response Services (ERRS) contractor and overseeing daily work orders.
- Supporting Liaison Officer, Public Information Officer (PIO) and Community Involvement Coordinator (CIC) in outreach activities.
- Providing regular updates to SITL including all operations conducted, as well as metrics associated with sampling and analytical data.
- Coordinating and conferring with the Planning Section Chief and Safety Officer.
- Developing work assignments (ICS Form 204), and allocating and prioritizing tactical resources.

- Maintaining and ensuring compliance with safety practices.
- Evaluating on-scene operations and making adjustments to organization, strategies, tactics and resources as necessary.
- Reporting information about special activities, events and occurrences to the IC.

3.1.3 Relocation Branch Manager/Assistant Operations Branch Manager

The Relocation Branch Manager and Assistant Operations Branch Manager are responsible for directing all aspects of the residential temporary relocations including:

- Ensuring the fair and ethical treatment of the residents, in accordance with URA and the DOT and U.S. EPA regulations.
- Overseeing and managing staff working on relocation issues, including all resident interviews, documentation, moving, and cleaning operations.
- Ensuring appropriate contractor support for conducting the relocation operation.
- Ensuring appropriate distribution of government relocation benefits.
- Ensuring appropriate financial management and documentation by contractors assisting with the relocation operation.
- Assisting in the inspection of cleaned dwellings prior to residents' resuming occupancy.
- Trouble-shooting problems that occur during temporary relocations.
- Reviewing and processing appeals by residents regarding relocation decisions.
- Facilitating coordination of social or special services for residents as needed.
- Conducting relocation interviews as needed.
- Updating SITL regularly on all operations, including metrics associated with number of interviews completed and scheduled, number of homes/residents relocated, number of relocations scheduled, number of homes cleaned, number of homes/residents returned to homes and other requested information.

3.1.4 PIO and CIC for Public Affairs Assistance

Because of the consistently high demand for public information and community involvement at the Complex Project, both a PIO and a CIC are currently assigned to this site.

PIOs are responsible for the following activities:

- Developing a site-specific communications strategy.
- Responding to public and media inquiries.
- Arranging press conferences and media events.
- Issuing press releases and desk statements at milestones in the project.
- Assisting the OSC for relocation activities in identifying community needs and coordinating with other government agencies.
- Performing speaking engagements throughout the community.
- Updating STIL regularly on all Public Affairs activities.

The following procedures will be in place to ensure that all public communications related to Agency work on the USS Lead Superfund site are appropriately reviewed prior to release. The Public Affairs Director (PAD) will be responsible for tracking products in the process. The general steps include:

1. Incident PIO sends draft document to PAD along with any pertinent information about deadlines, other reviews, etc. The PIO is responsible for getting approvals within the incident command structure, including from the incident commander.
2. PAD forwards to Office of Land and Emergency Management (OLEM) reviewers. If any additional regional reviews are needed (e.g., Superfund Division Director or Regional Administrator), this will happen before the document is sent to OLEM.
3. OLEM reviews and forwards to OPA reviewers.
4. Office of Public Affairs (OPA) reviews and sends approval to PAD.
5. PAD sends final version to PIO, copying OLEM and OPA reviewers.

This procedure will be updated/revised as needed.

CICs are responsible for the following activities:

- Organizing Canvassing Teams that will make initial contact with residents by going door-to-door to determine if residents are interested in scheduling an appointment with the Interview Team to discuss temporary relocation.
- Arranging neighborhood information sessions and public meetings.
- Developing community information materials, including fact sheets, leaflets, and postcards.
- Conducting community interviews.
- Developing the site-specific community involvement plan.
- Establishing local information repositories at public libraries in the affected communities.
- Updating SITL regularly on all CIC related activities.

3.2 Staffing Support for Relocation Activities

3.2.1 Contractor Support

Contractor support is required for relocation activities due to the large scale nature of this response. Both the ERRS and Superfund Technical Assessment and Response Team (START) contractors will assist with various tasks associated with the sampling, relocation, and cleaning activities.

U.S. EPA relocation guidance directs that contractors should never be tasked with activities which require making decisions regarding relocation benefits. Accordingly, a U.S. EPA representative will determine the scope and amount of relocation benefits available to members of each household being temporarily relocated at the Complex Project. ERRS and START involvement are limited to the routine administrative procedures listed below, subject to U.S. EPA representative oversight.

ERRS Taskings

The ERRS contractor provides staff to assist in administering the relocation activities.

Responsibilities include:

- Making hotel reservations. See Appendix C for list of current hotels under contract.
- Making kennel arrangements for pets.
- Providing moving assistance, including packing materials.
- Arranging school transportation for children of displaced households.

- Maintaining and updating relocation database information.
- Paying all lodging costs, including tax.
- Paying per diem amounts determined by U.S. EPA representative.
- Arranging security at the ICP and at affected homes.
- Maintaining site relocation files.
- Making arrangements for an independent appraiser to assess the cost of items of furniture disposed of because of damage, if necessary.
- Documenting costs.

START Taskings

The START contractor provides staff to assist in administering the relocation activities.

Responsibilities include:

- Assisting U.S. EPA personnel in conducting relocation interviews.
- Serving as Case Managers.
- Maintaining U.S. EPA files for relocated households.
- Drafting documents used to administer the relocation.
- Serving as members of the documentation team.
- Providing onsite support to Relocation Branch Manager.
- Conducting indoor sampling activities.

3.3 Relocation Branch Structure

The Relocation Branch consists of three divisions: Relocation Task Force, Hotline Group and Move Response. All three divisions will closely interface with each other to ensure each move is properly completed and accurately documented. Specific positions and duties are described below.

3.3.1 Relocation Task Force

The Interview Teams, Case Documentation Support Team and Residential Case Management (RCM) Support Team will report to the Relocation Task Force lead. Responsibilities of each of these teams are discussed below.

3.3.1.1 Interview Team

A total of four interview teams will be trained. Each team consists of one lead U.S. EPA employee and one START contractor. Interviews will be scheduled Monday thru Friday. Saturday interviews may be scheduled if residents are not able to meet during the week. Residents will be able to sign up for scheduled times. No interviews will be conducted past 5:30 PM. Responsibilities include:

- Briefing residents thoroughly on relocation guidelines, move parameters, per diem, transportation, timelines, home accessibility, security, etc.
- Ensuring residents understand procedures, agree to the move, and sign all required electronic paperwork in accordance with the relocation guidance.
- Completing detailed documentation during the interview.
- Scheduling move date and time with resident.
- Providing a copy of the *Residents Guide to Temporary Relocation* to the residents.
- Relaying specific residents' needs to the Residential Case Management Support Team.

- Ensuring the RCM Support Team is thoroughly briefed prior to meeting the family.

3.3.1.2 Case Documentation Support Team

Two START personnel and two ERRS staff will be part of each Case Documentation Support Team. There will be a total of four teams. Documentation is extremely important and the pre- and post-cleaning conditions at each home will be documented thoroughly. Responsibilities include:

- Receiving time/date for initial documentation for the Household Identification Number (HHID) from the Case Manager. The HHID number is used to facilitate record-keeping and protect the privacy of the resident.
- Taking photographs/video of home interior prior to resident departure for temporary relocation.
- Ensuring broken, damaged, and high value items are accurately captured and documented through photographs/video.
- Taking post-cleaning photographs/video after the cleaning is complete and before the resident returns. **Thorough documentation is key!**
- Uploading the database with all photographs, videos, additional documents, and signed forms.
- Ensuring documents and photographs/videos are tagged with their HHID number.
- Reviewing the database for accuracy once a move is complete.

3.3.1.3 Residential Case Management Support Team

The Case Managers will be either U.S. EPA or START employees. Case Managers will be trained for this project and will work as a team to ensure all residential needs are met, including assisting residents with required documentation. The Case Manager, working with other team members, will be the first-line liaison to the residents from the beginning of a move until completion. That said, Case Managers will not make any decisions that may be legally binding or place themselves in a dangerous situation. This includes making promises that were not in the original interview contract and offering personal services (babysitting children, personal rides, fielding after-hours phone calls, etc.) If Case Managers ever feel uncertain about a request, they will immediately contact the Relocation Branch Director. Case Managers will be assigned a pool phone dedicated for this response to communicate with residents. Responsibilities include:

- Completing thorough review of interview case package.
- Obtaining a direct line of communication through an assigned pool phone (dedicated for this response) with the residents. **Residents' needs should come first if possible!**
- Overseeing initial home review and final walk-through.
- Working closely with the relocation crews, documentation teams, residential security detail, and cleaning crews throughout the entire temporary relocation process to ensure overall moves are completed.
- Ensuring all agreements are fulfilled as included in the interview package.
- Conducting a thorough review of the case package and out-brief the Relocation Branch Director once the move is complete.

3.3.2 Hotline Group

The Hotline Group lead reports directly to the Relocation Branch Manager and is responsible for overseeing two teams, the Hotline Team and the Canvas Team.

3.3.2.1 Hotline Team

U.S. EPA CICs and other representatives make up the Hotline Team. Responsibilities include:

- Providing telephone support to residents who call the on-site hotline number Monday through Friday, 8:00 AM to 6:00 PM.

3.3.2.2 Canvas Team

U.S. EPA CICs and START staff make up the Canvas Team. Responsibilities include:

- Going door-to-door asking residents if they are interested in talking with U.S. EPA about having their home cleaned.
- Using the USS Lead Canvassing Questions form (see Attachment 10) to gather information from the resident including name, address, contact information, if they are interested in the cleaning service, and if there are children under the age of six a pregnant woman living in the home.
- Calling residents to schedule interview appointments.

3.3.3 Move Response

The ERRS Move Response Manager will coordinate and be responsible for the following four types of teams: Cleaning Strike Team(s), Relocation Team(s), Cleaning Team(s) and Pre/Post Documentation Team(s).

3.3.3.1 Cleaning Strike Team

The Cleaning Strike Team(s) will consist of ERRS contractors. This team will interface with a Residential Case Management Support Team to coordinate residents and the Cleaning Strike Team process from start to finish.

A Cleaning Strike Team cleaning should be completed in a single day. Residents are asked to vacate the house and keep their keys. Generally speaking a hotel room is not provided for the resident. On a case-by-case basis, at the discretion of the Relocation Branch Chief, it may be possible to provide a resident with the use of a hotel room for the day.

Responsibilities of a Cleaning Strike Team include:

- If a resident approaches U.S. EPA to clean items such as furniture, carpets, toys, and pictures, and the Relocation Branch Chief confirms this resident is a West Calumet Housing resident, AND is permanently moving within the next week, THEN a cleaning can be scheduled for this resident using the Cleaning Strike Team. The HOH will read and sign the Cleaning Access Agreement form and complete and sign a W-9 form in order to receive a pre-paid card following cleaning for compensation of utility usage by the cleaning crew. The Case Manager will then give the completed forms to ERRS for processing.
- The Relocation Branch Chief may determine on a case-by-case basis which items/categories may be excluded from the Cleaning Strike Team cleaning process. The Cleaning Strike Team process will clean fewer items than a home cleaning.
- The Cleaning Strike Team will meet the HOH at around 9 am at their residence. Approximately 6 hours are allotted for this process (9 am – 3 pm). Documentation and cleaning will both be completed entirely within this 6-hour window. However this

process might take longer than 6 hours to complete. The HOH will be informed of any delays.

- Pre Documentation Team will take photographs and video of the home interior prior to resident departure to demonstrate content and condition of the residence and items in it. This ensures broken, damaged, and high value items are accurately captured and documented through photographs and video.
- Following completion of cleaning, the Post Documentation Team will ensure photographs and video documentation indicates the Cleaning Team did not remove or damage items in the residence and that the condition and contents of the residence and items in it are accurately captured through photographs/video documentation.
- Resident returns after the cleaning is completed and will be asked to complete and sign the Debit Card Receipt Acknowledgement form that lists the card number and the amount loaded on the pre-paid card. The resident will receive a \$50 pre-loaded VISA card from the Case Manager to compensate for the use of utilities during cleaning.
- Teams will use the approved cleaning checklist (revised 9/19/2016) and conduct a thorough cleaning of residence furniture, carpets, toys, and other items following the directions listed below. Teams will
 - Teams will clean coffee tables, table tops, bureau tops, tops of bookcases (not including kitchen cabinets), tops of shelves, chair rails, and picture frames using “Wet” as the method of cleaning.
 - Teams will clean upholstered furniture and ceiling fan/box fan(s) using “HEPA” as the method of cleaning.
 - Teams will clean area rugs using “HEPA/Steam-cleaning” as the method of cleaning.
 - Teams will use a camera to document photos of cleaning activities, breaker box checked, and presence/absence of visible pests.
 - Teams will not open kitchen cabinets, drawers, or private spaces for cleaning.
 - Teams will not wash clothing or touch personal items.
 - Teams will wear approved personal protection equipment (PPE) in accordance with agency standards. PPE will be donned inside the house.
 - Teams will immediately contact the PIO and their direct supervisor if the media becomes involved with a property cleaning or approaches the contractor with questions.
- After cleaning has been completed, a U.S. EPA representative will accompany the documentation team to the home to verify cleaning has been completed. The resident and U.S. EPA representative will sign the Final Property Closeout Form.
- The Cleaning Strike Team remains in touch with Case Manager for last minute changes or additional needs/updates. **Communication is key to successful cleanings!**

3.3.3.2 Relocation Team

There will be four relocation teams each consisting of four ERRS contractors. These teams will interface with the Residential Case Management Support Team to execute temporary relocations from start to finish. Responsibilities include:

- Receiving in-brief from Case Manager to discuss specifics for a move based on needs of the residents. This will include (but not limited to) move dates, hotel location requests,

number of family members, transportation requests (school, work, shopping), and pet boarding requirements.

- Ensuring the family is provided the correct per diem through a pre-loaded VISA card. U.S. EPA employees will determine the amount of per diem to be distributed.
- Briefing Case Manager on confirmed reservations.
- Remaining in touch with Case Manager for last minute changes or additional needs/updates. **Communication is key to successful relocations!**

3.3.3.3 Cleaning Crews

There will be up to seven cleaning teams consisting of ERRS contractors. Responsibilities include:

- Conducting thorough cleaning of houses using approved cleaning checklist for indoor residential spaces. This will include top to bottom wet wiping down walls and hard surfaces, wet mopping floors, HEPA vacuuming heating/air conditioning duct work and replacing filters, and steam cleaning upholstery, carpets, comforters, and drapery.
 - Teams will not open cabinets, drawers, or private spaces for cleaning.
 - Teams will attempt to clean closets unless space is overloaded with personal items.
 - Teams will not wash clothing or touch personal items.
 - Teams will wear approved personal protection equipment (PPE) in accordance with agency standards. PPE will be donned inside the house.
 - Teams will immediately contact the Case Manager or their direct supervisor if the media becomes involved with a property cleaning or approaches the contractor with questions.
 - Teams must be aware that a documentation team will be capturing the cleaning process. If you are cleaning and there is no documentation member present, notify the Case Manager.

3.3.3.4 Pre/Post Documentation Team

Four documentation teams will be formed consisting of two ERRS staff and two U.S. EPA START contractors. Documentation is extremely important and each home will be documented thoroughly. Responsibilities include:

- Receiving time/date for initial documentation for HHID from Case Manager.
- Taking photographs/video of home interior prior to resident departure for temporary relocation.
- Ensuring broken, damaged, and high value items are accurately captured and documented through photographs/video.
- Working with the Case Manager to confirm the security detail is aware that a house is under U.S. EPA contract and should receive routine security checks.
- Working with Case Managers to be on-site during the cleaning process to take photographs/videos throughout the cleaning. This includes documentation of receipts for changed filters.
- Taking post-cleaning photographs/video after the cleaning is complete and before the resident returns. **Thorough documentation is key!**
- Uploading the database with all photographs, videos, additional documents, and signed forms.

- Ensuring documents and photographs/videos are tagged with their HHID number.
- Reviewing the database for accuracy once a move is complete.

Residential Security Detail

The residential security detail will be contracted through ERRS and is part of the Pre/Post Documentation Team. Responsibilities include:

- Conducting routine checks a minimum of every two hours at all vacant homes while U.S. EPA has relocated the residents. These checks shall include checking doors and windows to ensure the property is secure. Detailed security check lists will be posted and provided to the residential security staff on a regular basis.
- Preparing and documenting a thorough log of rounds and neighborhood activity.

4. PRELIMINARY OPERATIONS

4.1 Establishing a Network for Financing the Relocation Operation

Under URA, U.S. EPA is required to 1) issue temporary relocation benefits to residents during the period of their relocation, and 2) reimburse certain specified costs to residents following their re-occupancy of the cleaned homes. Administering the benefits and reimbursements involves the disbursement of Federal funds to individuals, an administrative task that is not ordinarily within the scope of work of CERCLA removal actions. To ensure the proper use and the effective disbursement of Federal funds throughout the anticipated duration of the Complex Project, U.S. EPA will distribute debit cards procured by the ERRS contractor. U.S. EPA staff will calculate the total funds to be distributed for each relocated family.

4.2 Identification of Suitable Temporary Housing

The ERRS contractor is responsible for considering and evaluating available housing for persons being temporarily relocated. The replacement housing must meet standards for "decent, safe, and sanitary" housing, as set out in the DOT regulations. Replacement housing alternatives must meet Federal per diem guidelines for the East Chicago, Indiana area, which currently is \$94.00 per night. The options considered should be the least disruptive to the persons being temporarily relocated. In general, the standards specify that temporary housing leased by the Government must not present a health or safety hazard to the occupants, be reasonable in size to accommodate the needs of the occupants, and be within reasonable commuting distance of work, school, etc.

As part of the development of the Temporary Relocation Plan for the Complex Project, ERRS assisted the OSC by investigating local housing resources that met the standards and could be utilized for temporary housing. At this time, ERRS has identified three hotels in the area including the EconoLodge, 4000 Calumet Avenue, Hammond; Hampton Inn, 2842 Carlson, Hammond; and Fairfield Inn, 7720 Corinne Drive, Hammond where residents will be temporarily located. See Appendix C for the list of hotels and complete addresses used for temporary relocation under contract with ERRS.

4.3 Temporary Relocation Benefits

The DOT regulations provide for the issuance of temporary relocation benefits to any person, family, individual, business, nonprofit organization, or farm being temporarily relocated during a Superfund action. Temporary relocation benefits are intended to cover reasonable living expenses, which are additional to expenses incurred prior to displacement from the primary residence. They are not intended to provide total compensation to individuals for expenses or losses associated with contamination from a Superfund site. The money will be added incrementally, as needed, based on the size of the house and time required to clean the house. The initial dollar amount put on the card will be enough for two days and will be replenished as needed. The additional funds will either be added to the card or a new card will be issued. U.S. EPA will determine who is eligible to receive these benefits and will ensure the head of household (HOH) receives the appropriate benefits.

Benefits for this project include hotel costs, which will be paid directly by the ERRS contractor, and a daily allotment for meals and incidentals. The daily allotment was derived from the Federal

per diem rate for East Chicago and based on each person's age. Adults receive the full daily per diem rate and children under age 12 receive half the adult daily per diem rate. In accordance with Federal per diem regulations, all family members will receive 75 percent of the appropriate full daily per diem rate on the first and last days of their relocation. The first day is defined as the move out of house day and the last day is defined as the move back into the house day. (Refer to Attachment 4 for the administrative form utilized to determine the total per diem allotment per relocated family). Per Federal guidelines, the 2016 per diem rates for East Chicago, Indiana are:

- Adults and children 12 and over: \$59.00 per day; \$44.25 for move out/move in days
- Children 11 and under: \$29.50 per day; \$22.13 for move out/move in days

The HOH will need to complete a W-9 form to be able to receive the debit card. The debit card will be given to the HOH on the move out day and the HOH will be required to sign the *Debit Card Receipt Acknowledgement Form* (Attachment 9) upon receiving the card. The amount of money applied to the debit card is an estimate based on the number of days the Relocation Team determines it will take to clean the house. The money will be added incrementally, as needed, based on the size of the house. The initial amount put on the card will be enough for two days and will be replenished as needed. The additional funds will either be added to the card or a new card will be issued.

In addition to per diem funds, the HOH will receive a \$50.00 payment to cover incidental expenses upon return to their home. This allowance covers the cost of any utilities including water and electricity the cleaning crew may have used during the cleaning process.

Many of the affected households include persons who are receiving various forms of public assistance. Under URA, Part 24.208, "no payment of relocation assistance received by a displaced person shall be considered as income for the purpose of the Internal Revenue Code, or for the purpose of determining the eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other Federal law, except for any Federal law providing low-income housing assistance".

4.3.1 Application for Temporary Relocation Benefits

Under the DOT regulations, persons being temporarily relocated as a result of Federal actions or projects must apply in writing to be considered for temporary relocation benefits. The *Temporary Relocation Assistance* form was developed for this purpose (see Attachment 2). This form is used to obtain information necessary for assistance, and must be completed for all U.S. EPA temporary relocation actions. Members of each household are included on a single application.

Members of the Relocation Team will assist the applicants in completing the form during the relocation interview.

5. ADMINISTRATION OF RELOCATION ACTIVITIES

5.1 Notification of Residents

Using the list of priority and sensitive residents developed by the East Chicago Housing Authority and ATSDR, Canvassing Teams will knock on doors in the Complex and ask residents if they are interested in talking with U.S. EPA staff about having their house cleaned. The Canvassing Team will complete the *USS Lead Canvassing Questions* form (Attachment 10) indicating if the resident is interested in scheduling an interview with the U.S. EPA Relocation Team.

Members of the Canvas Team will call each resident to schedule an appointment with U.S. EPA to discuss the relocation and cleaning processes. Residents will receive a call to confirm the appointment 30-60 minutes before the scheduled interview.

5.2 Interview with Residents

A principal responsibility of the Relocation Team is to conduct personal interviews with prospective relocatees. Teams consisting of one U.S. EPA representative and one START member visit with each household and interview the HOH. The purpose of these interviews is to explain the Temporary Relocation Program, obtain access for U.S. EPA crews to clean the home and help the HOH complete the necessary forms. The interviews also provide the opportunity to get to know the residents and let them know who is available to help them through this process.

Several electronic forms, applications and information documents have been developed by U.S. EPA and approved by Office of Regional Counsel (ORC) to document the relocation process and provide information to the residents. During the interview, these forms will be explained and the appropriate signatures will be received. A copy of the forms will be provided to the resident.

Heads of households will also be advised to maintain a file of all documents involving their temporary relocation.

The following sections describe the electronic and paper forms the resident will need to review and sign during the interview and temporary relocation processes. Additional forms discussed are used by U.S. EPA and its contractors.

5.2.1 Cleaning Access Agreement

Relocation Team members will obtain consent from residents to have their home cleaned and to be temporarily relocated during the cleaning. The OSC worked with ORC representatives to develop a written access agreement for residents to read and sign, giving U.S. EPA and its authorized agents access to the affected properties in order to clean the home to remove any lead dust that may be in the home. See Attachment 1 for the *Cleaning Access Agreement* form.

5.2.2 Temporary Relocation Agreement

U.S. EPA provides the HOH with a *Temporary Relocation Agreement* (Attachment 2), which allows U.S. EPA to temporarily relocate the residents while their home is being cleaned. The agreement also outlines the general rules and guidelines that the resident agrees to follow

throughout the relocation process, including what bills they will need to continue to pay, and the importance of following hotel/motel rules.

5.2.3 School Transportation for Children

Many of the households being relocated as part of the Complex Project include school-aged children. The replacement housing may be located at a considerable distance from the children's local schools. ERRS staff will provide transportation for children who are temporarily relocated to and from the hotel and school. The *Application for School Bus Transportation* (Attachment 3) needs to be completed with the children's names and school.

5.2.4 Per Diem Notification Letter

U.S. EPA will provide the residents a *Per Diem Notification Letter* (Attachment 4) stating the resident has approved having their home cleaned and being temporarily relocated. This letter also provides information about the benefits the resident will receive.

5.2.5 Meals and Incidentals Computation Sheet

The *Meals and Incidentals Computation Sheet* (Attachment 5) is used to calculate the per diem offered during the resident's relocation during cleaning. During the interview, the Interview Team will gather information from the resident, including the number of adults and children and the number/ages of the children in the home. Based on this information, the Interview Team will calculate the per diem allowance and discuss it with the HOH.

5.2.6 General Packing Instructions

Residents being temporarily relocated will be provided with *General Packing Instructions* (Attachment 6). The instructions detail what items are recommended to be brought with them to their temporary housing and how to label boxes being transported. Residents are asked to pack personal belongings that they do not want disturbed and will remain in the home and mark them "PERSONAL".

5.2.7 Hotel Rules

Residents being temporarily relocated to a hotel/motel should be aware of typical hotel policies to make their stay more comfortable and as a common courtesy to other hotel guests. Residents will be given a list of *General Hotel Rules* (Attachment 7).

5.2.8 W-9 Form

The HOH will need to complete and sign a W-9 form (Attachment 8) in order to receive a pre-paid card for per diem. The Case Manager will then give the completed form to ERRS for processing.

5.2.9 Debit Card Receipt Acknowledgement

The HOH will receive a pre-paid card from the Case Manager on their move day and will be required to complete and sign the *Debit Card Receipt Acknowledgement* form (Attachment 9) that lists the card number and the amount loaded on the pre-paid card when they receive the card.

5.2.10 USS Lead Canvassing Questions

The Canvas Team will use the *USS Lead Canvassing Questions form* (Attachment 10) to gather information about the residents, including interest in the temporary relocation program, name, address, and phone numbers.

5.2.11 Temporary Relocation Checklist

To assist the Relocation Team in making sure all forms needed are either collected or given to the resident, a *Temporary Relocation Checklist* has been developed (Attachment 11).

5.2.12 Smoking is Prohibited in Hotel Rooms

The HOH will need to read and sign the *Smoking is Prohibited in Hotel Rooms form* (Attachment 12) indicating that they understand the hotel policy and Indiana state law that smoking in hotel rooms is illegal and they will be responsible for any costs the hotel may charge if they smoke in the room. The \$50 utility reimbursement may also be withheld. The EPA representative will also sign the form.

5.2.13 Lodging/Per Diem Acknowledgement

The *Lodging/Per Diem Acknowledgement form* (Attachment 13) is used to get the ages and number of residents in the household to determine lodging and per diem needs for planning purposes. The HOH and EPA representative will sign this form during the interview process.

5.2.14 ERRS Relocation Checklist

The START member of the Interview Team member will complete the *ERRS Relocation Checklist* (Attachment 14) based on information provided by the resident and the Case Manager during the interview. The START member will then give the completed checklist to ERRS, along with the W-9 form and Meals Computation Sheet.

5.2.15 Final Property Closeout Form

After cleaning has been completed, a U.S. EPA representative will accompany the documentation team to the home to verify cleaning has been completed. The resident and OSC will sign the *Final Property Closeout Form* (Attachment 15).

5.3 Special Services Required

The Case Manager will be the contact for the resident. There may be situations that arise that the Case Manager is not equipped to handle. The Relocation Branch Chief should be contacted immediately if a situation arises that the Case Manager is uncomfortable in resolving on their own. **Gilda Orange at 219-201-1040** is a local resource from the North Township Trustee's Office that can assist the Relocation Branch Chief. See Appendix D for local office information for the North Township Trustee Office and for a list of other local emergency resources.

5.4 Arrangements for Receipt of Mail

Due to the short duration of your relocation, we do not expect any issues with mail delivery. The post office will still be able to deliver mail to the boxes located near the recreation center. Residents will be reminded that if they are currently receiving forms of assistance such as Aid to Families with Dependent Children (AFDC), it is extremely important that they do not change the address at which they receive their mail.

5.5 Administration of Temporary Relocation Benefits

In accordance with regulations, the Relocation Team maintains a file for each household that is temporarily relocated. The file contains the following documents:

- Cleaning Access Agreement (Attachment 1)
- Temporary Relocation Agreement (Attachment 2)
- Application for School Bus Transportation (Attachment 3)
- Per Diem Notification Letter (Attachment 4)
- Meals and Incidentals Computation Sheet (Attachment 5)
- General Packing Instructions (Attachment 6)
- General Hotel Rules (Attachment 7)
- W-9 Form (Attachment 8)
- Debit Card Receipt Acknowledgement Form (Attachment 9)
- Canvassing Form (Attachment 10)
- Temporary Relocation Checklist (Attachment 11)
- Smoking is Prohibited in Hotel Rooms Form (Attachment 12)
- Per Diem and Lodging Acknowledgement Form (Attachment 13)
- ERRS Relocation Checklist (Attachment 14)
- Final Property Closeout Form (Attachment 15)
- Memos to document any change eligibility status (e.g. as a result of birth or decease of a household member)
- Videos, photographs and other documentation from the cleaning process

Each household is identified by a HHID number to facilitate recordkeeping and protect the privacy of the resident.

Because of the sensitive nature of information in these household files, they will be stored in a locked file cabinet in the Relocation Branch Chief's office. After cleanup activities have been completed at each property, the files are relocated to an on-site secured, locked safe.

5.5.1 Distribution of Pre-paid Cards

The ERRS contractor is responsible for obtaining the pre-paid cards that will be distributed to residents. ERRS will deliver the cards to the OSC at the ICP. The OSC will hand-deliver the cards to the Case Manager, who will distribute them to the designated recipients on the day of the move to their temporary relocation hotel

5.5.2 Termination of Benefits

The U.S. EPA *Superfund Response Actions: Temporary Relocations Implementation Guidance* requires that persons who are temporarily relocated in a CERCLA removal action be given reasonable advance notice of the termination of temporary relocation benefits, including at a minimum the date and time that relocatees can reoccupy their primary residences, and the date and time when temporary relocation benefits will cease. The HOH will be contacted by the Case Manager 24 hours before the date that relocation benefits will cease. According to the guidance, notice of termination of benefits should be in writing, or, where written notice is impracticable,

oral notice will be provided, followed later by a written notice. The HOH will be responsible for any additional charges beyond the date and time of the termination of benefits.

5.6 Administration of Reimbursements

Under the DOT regulations, persons being temporarily relocated as part of a CERCLA removal action are eligible to receive reimbursement for all reasonable out-of-pocket expenses incurred in connection with the temporary relocation. After returning to their home, the HOH will receive a pre-paid card in the amount of \$50.00 for incidental expenses. This allowance will cover the cost of any utilities including water and electricity the cleaning crew uses during the cleaning process.

Other expenses eligible for reimbursements include additional mileage from temporary housing to work and public transportation costs.

5.7 Administrative/Communications Tools

An important element of the Complex Project is communication among the various teams associated with different aspects of the project. The IC conducts a daily “all-hands” conference. These calls provide an opportunity for all staff to offer updates on site activities, discuss problems as they occur, and suggest solutions that could be implemented quickly. All staff will be provided with a Situation Report (SitREP) on detailing the previous reporting period’s activities.

In addition, the IC conducts daily morning meetings to report progress and troubleshoot any problems. These meetings include U.S. EPA, START, and ERRS personnel involved in the relocation activities.

At the start of the temporary relocation process, electronic forms were not available. Paper copies of all forms were presented to the residents and signed by the residents and U.S. EPA staff where appropriate during the interview. Once electronic forms were put in place, iPads are now used during the interviews and residents electronically sign the forms. The electronic forms will be uploaded to a database and stored in the proper resident file. Residents will be given a copy of the signed forms.

ATTACHMENT 1

Consent for Entry and Access to Property United States Environmental Protection Agency—Region 5

Name: _____ Property ID No.: _____

Address of property for which consent to access is granted (the "Property"):

Temporary Address: _____

Phone: _____

Relationship to Property: _____
 (owner, 5 year tenant, etc.)

I grant consent to officers, employees, and authorized representatives of the United States Environmental Protection Agency ("EPA") to enter and have continued access to my property at all reasonable times for the following purposes:

- Communication with residents and other people on the property.
- Inventorying and documentation of all visible household contents.
- Deep cleaning of household items, including:
 - Cleaning of floors and walls.
 - Steam cleaning upholstery and carpeting.
 - Cleaning of HVAC system.
 - Cleaning of all window covering
- Such other actions as EPA determines are necessary to protect human health or welfare or the environment.

I understand that EPA is authorized to undertake these actions pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. § 9601 *et seq.*



I understand that there may be loss of or damage to property during these actions. In addition, I understand EPA will be using utilities, including heat, water, and electricity, while taking the actions permitted in this document.

I certify that I have the authority to permit the actions authorized in this document. This written permission is given by me voluntarily, without threats or promises of any kind, and I understand that I have a right to refuse.

All statements in this document are true and correct to the best of my knowledge. I understand that intentionally making false or fraudulent statements in this document is a criminal offense punishable by a fine and/or imprisonment.

Date: _____ Signature: _____

ATTACHMENT 2

Property ID Number: _____ Interviewer(s) (name, organization): _____

U.S. Environmental Protection Agency Temporary Relocation Agreement

This is an agreement between the United States Environmental Protection Agency (EPA), an agent of EPA, and _____
 ("Residents"), as representatives for the household located at _____

 (address of primary residence)

EPA has determined that a cleaning action is necessary to minimize potential lead and/or arsenic dust contamination. During the time that the cleaning action is underway, all residents living in this household will be offered temporary relocation.

Residents hereby accept temporary relocation from their primary residence to a temporary location, and acknowledge that out-of-pocket expenses as described below will be reimbursed by EPA.

Residents agree that all household members will leave their primary residence on _____. Residents understand that EPA estimates the temporary relocation will be for approximately one week.

Residents understand that they are responsible for continuing to make their mortgage/rent payments while they are temporarily relocated by EPA. Residents are further aware that if they do not continue to make these payments, some or all of their temporary relocation assistance may be terminated.

Residents understand that they are responsible for continuing to make payments on their homeowners insurance at their primary residence.

Residents agree to make appropriate payments to the various utility companies providing service to their primary residence.

Residents understand that EPA will provide them with a list of things they should do before leaving their primary residences, such as disposing of garbage, removing and safely storing valuables, and taking items that will be needed during temporary relocation.

Residents also agree to abide by the rules of the motel/hotel, and understand that failure to do so may result in their being asked to leave and may result in a reduction of their temporary relocation assistance. In the event that EPA seeks to terminate the temporary relocation assistance under this program, EPA will first provide written notice to the Residents.

At check out from the hotel, Residents agree to pay for any long distance phone calls, pay-per-view television, and any other charges not covered by the basic room rate being paid by EPA.

Residents understand that if they fail to pay these hotel expenses, EPA may withhold part of their temporary relocation reimbursement.

Residents understand that they are responsible to the landlord and rental company for any damage to the temporary residence and rental furniture done by themselves, their family, or their guests. Residents understand that EPA may withhold part of their temporary relocation reimbursement if they fail to compensate the landlord or rental company for damages.

Residents understand that EPA will notify them when their temporary relocation assistance will end. If Residents choose not to return to their primary residence after that date, they are responsible for any additional expenses they incur.

Residents understand that if EPA becomes aware of any potentially illegal activity at their primary or temporary residence, EPA will contact the appropriate authorities.

Residents understand that if any information they provide EPA for determining eligibility for assistance is found to be false, temporary relocation assistance may be terminated. Also, if family circumstances change while they are temporarily relocated, (e.g., the birth of a child, the moving out of an adult child from the temporary residence), or if they choose to sell their primary residence or to terminate the lease at their primary residence, Residents will notify EPA. Residents understand that changes in the family circumstances may result in increases or decreases in temporary relocation assistance.

Residents understand that, for safety reasons, they will not be able to return to their primary residence while they are temporarily relocated, and they should take all necessary personal property and records to their temporary residence.

Residents understand that EPA will reimburse them for the following expenses:

1. Daily meals and incidentals \$ _____ (daily rate)
 (for transient accommodations)

Residents understand that EPA may pay for other expenses associated with the temporary relocation only if the expenses are approved in advance by EPA and receipts and/or other evidence of the expenditure are presented, and the reasons for the expense are documented.

Residents understand that EPA has offered to reimburse them for any expenses associated with renting a safety deposit box at a hotel or bank for storing small items of value such as jewelry, important papers, etc.

Residents understand that EPA will arrange for transportation of their children from the motel/hotel to and from schools and that they must fill out an application for school bus transportation.

Residents agree to allow EPA to videotape their primary residence and personal property before they depart and again just before they return to the residence to verify what property is left behind and the condition of all real and personal property. Residents understand that they will receive a copy of the video free of charge if requested.

Residents understand that it is EPA's policy to provide them an opportunity to have their disputes reviewed by an EPA official not involved in the disputed issue, and that they must describe their dispute in writing to EPA.

As representatives of my/our household, I/we have read this agreement and understand and accept the terms and conditions of this temporary relocation agreement. I/we request that the temporary relocation assistance prepaid cards be assigned to:

(resident or guardian)

Signature(s) of agreement:

Resident(s):	_____	Date:	_____
	_____	Date:	_____
	_____	Date:	_____
	_____	Date:	_____
EPA:	_____	Date:	_____

ATTACHMENT 3

Application for School Bus Transportation

The U.S. Environmental Protection Agency (EPA), through its contractors, provides school bus transportation for children who are relocated in hotels while their homes are being cleaned. There is no charge for this service.

If you would like to provide your own school transportation for your children instead, you must get pre-approval from EPA. If approved, EPA will reimburse you for miles traveled at \$____per mile. Also, if public transportation or taxis are used, save your receipts and submit them for reimbursement. Please contact _____ at _____

_____ if you are interested in this option.

To apply for EPA-provided bus service, please provide the following information.

NOTE: For young children, EPA may require that a parent/legal guardian, or an alternate adult approved by the parent/legal guardian, deliver the child to the school bus and receive the child from the school bus each day. This person will be required to sign a sheet when the child boards the bus for school in the morning and when the child gets off the bus after school in the afternoon. Many states have laws that hold parents responsible for the supervision of their children. Check the state laws to determine at what age children can board and get off the school bus without adult supervision.

Children Needing School Bus Transportation	
Child's Name:	Age:
School Name:	School Year: ____/____/____ thru ____/____/____
Time School Starts:	Time School Ends:
Special Instructions For This Child:	
Child's Name:	Age:
School Name:	School Year: ____/____/____ thru ____/____/____
Time School Starts:	Time School Ends:
Special Instructions For This Child:	

Child's Name:		Age:
School Name:	School Year: __/__/__ thru __/__/__	
Time School Starts:	Time School Ends:	
Special Instructions For This Child:		

Parents or Legal Guardian	
Name	Relationship to Child:
Permanent Address:	
Temporary Address:	
Daytime Phone:	Evening Phone:
Name	Relationship to Child:
Permanent Address:	
Temporary Address:	
Daytime Phone:	Evening Phone:

Alternate Adults Approved to Deliver Your Children to and Pick Up Your Children from the School Bus	
Name:	
Daytime Phone	Work Phone
Name:	
Daytime Phone	Work Phone
Name:	
Daytime Phone	Work Phone

The school transportation service provided includes a school bus or van, driver, and a security guard.

I understand that the transportation provided is contingent upon good behavior by my child/children riding on the school bus and that my child/children must follow instructions from the school bus driver and/or security guard while using the transportation service.

I further understand that if my child/children misbehaves, or if there are difficulties with receiving my child/children from a responsible adult or delivering my child/children to a responsible adult, this service will be terminated and I will be responsible for school transportation for such child/children.

Name of Parent or Guardian:
(please print) _____

Signature of Parent or Guardian: _____

Date: _____

Witness Signature: _____

ATTACHMENT 4**Per Diem Notification Letter**

Date: Name/Address

Dear:

As you may know, the U.S. Environmental Protection Agency (EPA) is cleaning your residence because it was potentially contaminated with lead and/or arsenic dust. You and your family will need to be temporarily relocated for approximately one week during the cleaning activities.

This letter is to inform you that EPA has reviewed and approved your application for Superfund Temporary Relocation Assistance. EPA will provide the following assistance to you and your family during your period of temporary relocation:

1. A daily allotment for food and incidental expenses. The daily allotment is based on the federal per diem rate for Lake County, Indiana, which will be calculated as follows:

Adults and children age 12 years and older	\$59.00 per day
	\$44.25 per first and last day
Children age 11 and younger	\$29.50 per day
	\$22.13 per first and last day
2. If you are making other arrangements, please contact us to obtain prior approval and a determination as to our allowance, if any.
 - * *Please note that in order to be eligible for EPA temporary housing assistance, you must continue your tenant or ownership status and pay your rent/mortgage at your primary residence.*
 - * *Costs for essential utilities (gas, water, and electricity) at your temporary residence during your temporary relocation. Please note that in order to be eligible for EPA temporary housing assistance, you must continue your tenant or ownership status and pay your bills for essential utilities at your primary residence.*
3. A one-time incidental costs allowance of \$50.00 will also be provided upon return to your residence.
4. Costs for kennel fees.
 - * *Please note, you must keep all receipts for expenses incurred during your relocation for which you plan to seek reimbursement. EPA will assist you in completing the enclosed claim forms. All claims for payment must be submitted within four months of the date you are allowed to return to your primary residence.*

Temporary relocation assistance will begin on _____ and will terminate upon notice from U.S. EPA.

Please be advised that if EPA determines at a later date that you received an inappropriate payment or that the information you provided to calculate these payments was based on incomplete, inadequate, or incorrect information, EPA may change its determination and could possibly seek a refund of money disbursed upon notice.

If you have any questions concerning this temporary relocation assistance, please contact _____ at _____

If you wish to dispute this determination or the amount of assistance received under this determination, you can submit a written description of your dispute to the following address within 60 days of receipt of this letter:

U.S. EPA Relocation Specialist
Steven P. Kaiser
Office of Regional Counsel
United States Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 353-3804

Sincerely,

EPA On-Scene Coordinator

Head of Household Signature: _____

Date: _____

ATTACHMENT 5

**Meals and Incidentals Computation Sheet for
Households Offered Relocation to Hotel or
Motels without Cooking Facilities**

Daily Allotment for Meals and Incidental Expenses (per diem)

Because you will be away from your home until cleanup is complete, EPA will pay you a daily allotment to cover your meals and incidental expenses during that period. You will be paid a daily allotment at the standard government rate (as outline in 41 CFR 302-4.206) to cover your meals and incidental expenses. That rate is based on the location (East Chicago) and the age of the person (adult or child).

Applicant No: _____

Applicant's Name: _____

Move Out Date: _____

No. of persons age 12 and older: _____ @ \$44.25/day = _____

No. of persons age 11 and below: _____ @ \$22.13/day = _____

Full Per Diem Days _____

No. of persons age 12 and older: _____ x _____ days @ \$59.00/day = _____

No. of persons age 11 and below: _____ x _____ days @ \$29.50/day = _____

Move Back Home Date: _____

No. of persons age 12 and older: _____ x @ \$44.25/day = _____

No. of persons age 11 and below: _____ x @ \$22.13/day = _____

Total Meals and Incidental = \$ _____

ATTACHMENT 6

General Packing Instructions

If U.S. Environmental Protection Agency (EPA) is temporarily relocating you to a hotel room, you will need to pack up your belongings in a special way. In addition, there are a number of personal items you will need to bring with you.

Pack everything you are going to need while you are in your temporary relocation location separately. Place the items that you will need to take to the temporary location (an example list is provided below) in boxes or bags and clearly mark them with the word "TEMPORARY HOUSING." All boxes also should be numbered (e.g., 1 out of 8) and include your name.

Please pack any personal belongings you don't want EPA to handle and mark the boxes "PERSONAL." Once you pack these items and the cleaning begins, you will not have access to the house and will not be able to access these items until the cleaning is completed. Once you close and seal your boxes, EPA and its workers will not open them, and will not clean any items within them.

You will remain at your temporary location until the cleaning of your unit is complete.

Items You Might Want to Bring to the HOTEL

- Toiletries (shampoo, soaps, makeup, hair dryers), and personal items (hair and toothbrushes)
- Clothing you will need for your stay
- Important medical and/or legal documents, including birth certificates, passports, wills, school registration forms, and proof of pet vaccinations.
- Laundry supplies (clothes basket, soap, and fabric softener)
- Valuables and jewelry
- Prescription drugs/medication

ATTACHMENT 7

Common Hotel Rules

If you are temporarily relocated to a hotel or motel, you should be aware of some typical hotel policies that will make your hotel stay more comfortable. The U.S. Environmental Protection Agency (EPA) appreciates your cooperation throughout your temporary relocation period.

- Please be courteous to all other guests in the hotel. No loud music or noise is allowed in guest rooms or in public areas.
- All children must be accompanied by an adult or guardian at all times. No running or playing is permitted in the hallways or public areas.
- You will be responsible for paying the hotel for long-distance telephone calls, bar bills and room service. EPA will reimburse you for any hotel fees associated with outgoing local calls. Incoming phone calls are free. You may need to ask the hotel's front desk to activate your telephone.
- No pets or animals are allowed inside or outside of the hotel unless permission is given from the hotel management.
- Cooking or food preparation is not allowed inside hotel rooms unless cooking devices are provided by the hotel. Before outdoor barbecue grilling, please check with the hotel management to see if it is permitted.
- No extra furniture is allowed in hotel rooms unless you have obtained permission from the hotel management.
- Please observe all "No Smoking" signs in public areas, and do not smoke in non-smoking rooms.
- Housekeeping service is provided in most hotels; however, you are still responsible for the general condition of your room.
- Please leave wet towels and dirty bed linens in your hotel room. Do not place these items in the hallway. The housekeeping service will pick up these items daily during their rounds.
- You are responsible for any damage that occurs in your room during your temporary relocation, such as broken furniture and staining of carpets or linens. If the hotel charges a replacement fee for these items, you will be responsible for paying it directly to the hotel.
- Please put litter in appropriate trash containers. If you have excess trash in your room, leave it in the wastebasket in your room or take it to a dumpster. Do not leave it in the hallway.

- Many hotels have swimming pools that may or may not have lifeguards in attendance. Please observe the hotel rules for use of the pool. Also check at the main desk of your hotel or motel to see if you need to pay a fee to use the pool or other recreational facilities.
- There may be an additional charge for any persons staying with you in your room who were not members of your household on the date of your relocation. EPA will not pay this extra charge.
- When your temporary relocation ends, you must check out of the hotel. On the day that you leave, go to the main desk and inform the clerk that you are checking out. Give the desk clerk the keys to all rooms used by you and your family.
- Please keep in mind that you are required to pay for any additional charges to your hotel room (such as room service, video rentals, or pay-per-view television events).

PLEASE NOTE: Any complaints that EPA receives from the hotel management about any resident could result in your eviction from the hotel. If you are asked to leave the hotel for any reason, EPA will not provide you with another hotel and your relocation assistance may be terminated. Anyone engaged in illegal activity may be removed from EPA's temporary relocation program.

I have read and agree to comply with this list of hotel rules, and any other rules imposed by the hotel at which I am staying during my temporary relocation.

Resident Signature _____ Date: _____

Resident Signature _____ Date: _____

ATTACHMENT 8

Form W-9 (Rev. December 2011) Department of the Treasury Internal Revenue Service	Request for Taxpayer Identification Number and Certification	Give Form to the requester. Do not send to the IRS.
Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return)	
	Business name/disregarded entity name, if different from above <div style="text-align: center;">N/A</div>	
	Check appropriate box for federal tax classification: <input type="checkbox"/> Individual sole proprietor <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C= C corporation, S= S corporation, P= partnership): _____	
	<input checked="" type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶	
	Address (number, street, and apt. or suite no.) <div style="text-align: center;">Property ID#</div>	Requester's name and address (optional)
City, state, and ZIP code <div style="text-align: center;">East Chicago, Indiana 46312</div>		
List account number(s) here (optional)		
Part I Taxpayer Identification Number (TIN) Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3.		
Social security number <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div>		Employer identification number <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div>
Part II Certification Under penalties of perjury, I certify that:		
1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and 3. I am a U.S. citizen or other U.S. person (defined below).		
Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.		
Sign Here	Signature of U.S. person ▶	Date ▶
General Instructions Section references are to the Internal Revenue Code unless otherwise noted.		
Purpose of Form A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.		
Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:		
1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued), 2. Certify that you are not subject to backup withholding, or 3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.		
Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9. Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are: • An individual who is a U.S. citizen or U.S. resident alien, • A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States, • An estate (other than a foreign estate), or • A domestic trust (as defined in Regulations section 301.7701-7). Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.		
(Cat. No. 102291X)		Form W-9 (Rev. 12-2011)

ATTACHMENT 9**Debit Card Receipt Acknowledgment Form**
U.S. Environmental Protection Agency

Property ID No. _____ Date: _____

I agree to vacate the premises at _____ (address) beginning on _____ (date) until the end of the decontamination process on my home.

I elect to stay at the _____ the accommodations provided by EPA. Accordingly, I agree to receive a food allowance of \$ _____ (see *EPA's Temporary Relocation Agreement*) for me and my family. I understand that if my eligibility for certain assistance changes, those changes may increase or decrease my relocation assistance. Relocation assistance will end on the date on which EPA permits me to re-enter my home or for any other reason listed on the *Grounds for Termination of Relocation Assistance* document that I have signed.

Total allowance for this period is \$ _____ (Debit Card # _____). This covers the period from _____ through _____, which is a total of _____ days.

Interviewer_____
Applicant (Print)

Date: _____

Applicant's Signature

ATTACHMENT 10**Canvassing Form****USS Lead home cleaning canvassing questionnaire 2016**

Name: _____ Today's Date: _____

HHID: _____ Address: _____

Do you want EPA to clean your home and furniture? Yes No

What is the best way to contact you?

Home Phone: (_____) _____

Cell Phone: (_____) _____ Text? _____

How many bedrooms are in the home? _____

Do either of these conditions exist in the home:

Children 6 and under? Yes No

Ages of children 6 and under _____

Pregnant Woman? Yes No

Interview Scheduled: Date: _____ Time: _____

Come to School: Yes No

Comments:

ATTACHMENT 11**Temporary Relocation Checklist**

Property ID: _____

- ☐ Consent for Entry and Access to Property
- ☐ Per Diem Notification Letter
- ☐ Temporary Relocation Agreement
- ☐ Meals and Incidentals Computation Sheet
- ☐ Application for School Bus Transportation
- ☐ General Packing Instructions
- ☐ Hotel Rules
- ☐ W-9
- ☐ Resident Temporary Relocation Guide
- ☐ Debit Card Receipt Acknowledgement Form
- ☐ Per Diem and Lodging Acknowledgement Form

Completed by: _____

Date: _____

Given to ERRS**Date:** _____

- ☐ ERRS Relocation Checklist
- ☐ Meals and Incidentals Computation Sheet
- ☐ W9

ATTACHMENT 12**SMOKING IS PROHIBITED IN HOTEL ROOMS**

I have been notified of hotel smoking rules. I agree to observe all "No Smoking" signs in public areas and to not smoke in non-smoking hotel rooms.

Additionally, I understand that it is illegal to smoke in hotel rooms per Indiana state law.

I understand that I am responsible for hotel cleaning fees (estimated at \$250) if I violate the hotel smoking policy.

If U.S. EPA is notified by the hotel of a violation of their smoking policy, I understand my debit card funds will be adjusted to pay the required penalty. Additionally, violation of the signed agreement with U.S. EPA will void my \$50 utility payment.

Signature

Date

U.S. EPA Representative

Date

ATTACHMENT 13**Lodging/Per Diem Acknowledgement**

Property ID: _____

Thank you for coming in to interview with us today. As we discussed, U.S. EPA will be providing you with lodging (a hotel from the three available choices) and per diem (money for food and incidentals) for the days you are being temporarily relocated due to the house cleaning.

Because we are planning this effort for all residents in the West Calumet Housing Complex, we need to plan for and pre-approve the funding for this effort. This means we need to know today the number and age of people in your housing unit so we can authorize money for your per diem and set up your lodging.

Please be aware that we cannot add additional people to your hotel stay or additional money to your per diem after this letter is signed because we have to prepay for this service for you.

Number of adults living in the unit (12+ years old): _____

Number of youth (11 and under): _____

Your per diem and hotel room selection will be strictly based on the information on this form.

Tenant signature and acknowledgement_____
Date_____
EPA Interviewer acknowledgement_____
Date

ATTACHMENT 14**ERRS Relocation Checklist**

Property ID _____

Head of Household /Contact Person: _____ Phone: _____

Address: _____

Date of Move: _____ Time of Move: _____ Planned Date of Return _____

Packing Materials Needed Yes ____ No ____

Packing Assistance Needed Yes ____ No ____

Transportation to/from Hotel Needed Yes ____ No ____ How many people _____

Any special transportation needs? _____

Transportation for special appointments Yes ____ No ____
Date/Time _____

School Transportation Needed Yes ____ No ____

Are there pets? Yes ____ No ____
Type and number _____Per Diem:
Total amount of pre-pay needed \$ _____Lodging:
Number of Hotel Rooms needed: _____ (adjoining Yes _____ No _____)
Handicap Room Yes _____ No _____**Special Instructions**



ATTACHMENT 15

Final Property Closeout Form

Property Address: _____

Owner's Name: _____ Property #: _____

Date/Time: _____ Number of rooms cleaned _____

Contractor/Rep. Name: Environmental Restoration LLC

General Info	Yes	No	N/A
1. Was everyone in the program friendly?			
2. Did everything go as expected?			
Personal items			
1. Is all your furniture back in place and undamaged?			
2. Are all the electronics in working order?			
3. Are all the appliances in working order?			
4. Are all floors undamaged?			
5. Are all walls undamaged?			
6. Are all ceiling and light fixtures undamaged?			
7. Are all carpet areas cleaned?			
8. Are there any issues at all?			

Comments _____

As the owners of

I acknowledge that all Cleaning and restoration work was completed appropriately and satisfactorily, and no damage remains beyond any settlement agreements with the contract:

Property
Owner: _____

Date: _____

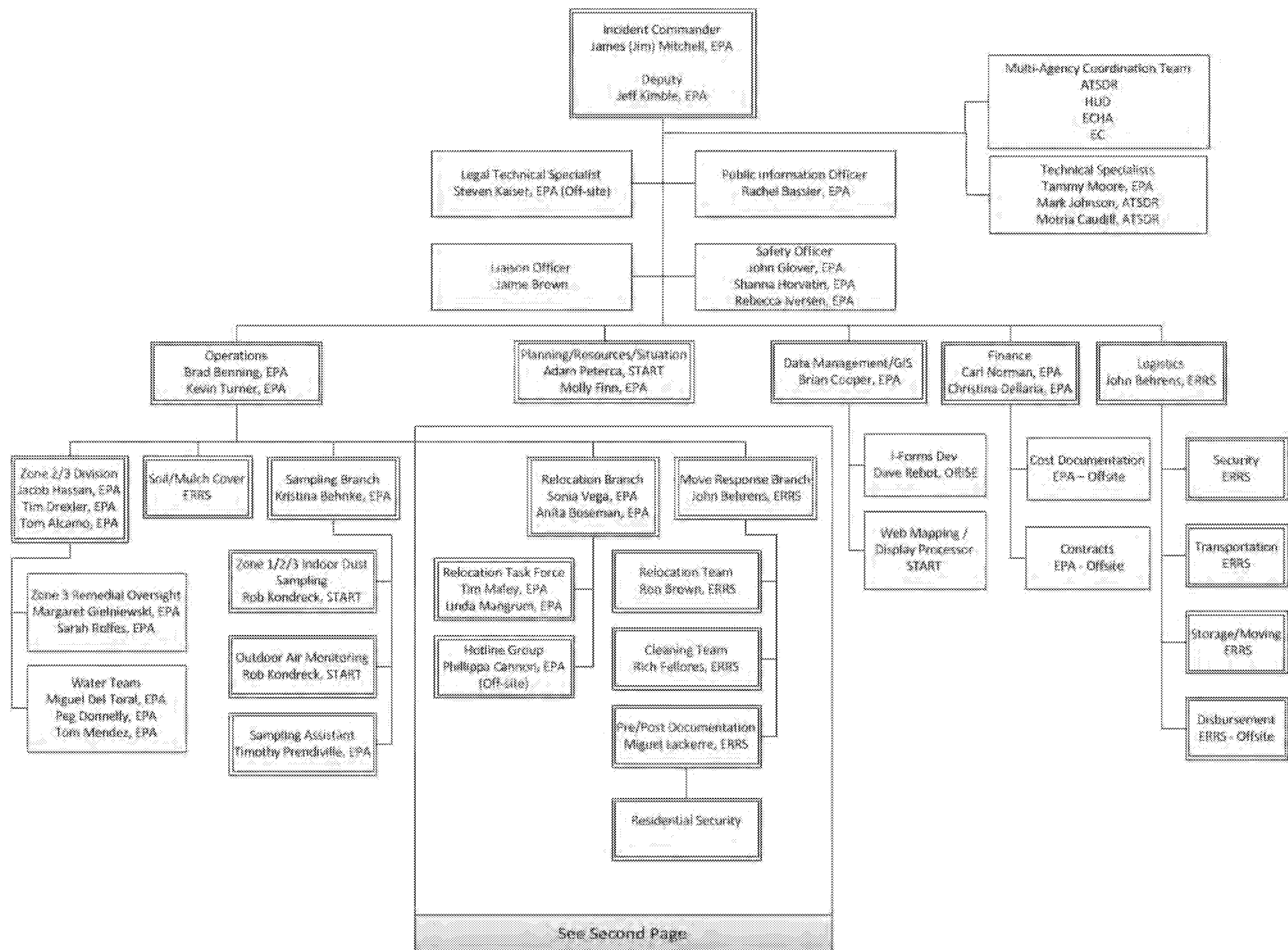
Contractor: _____

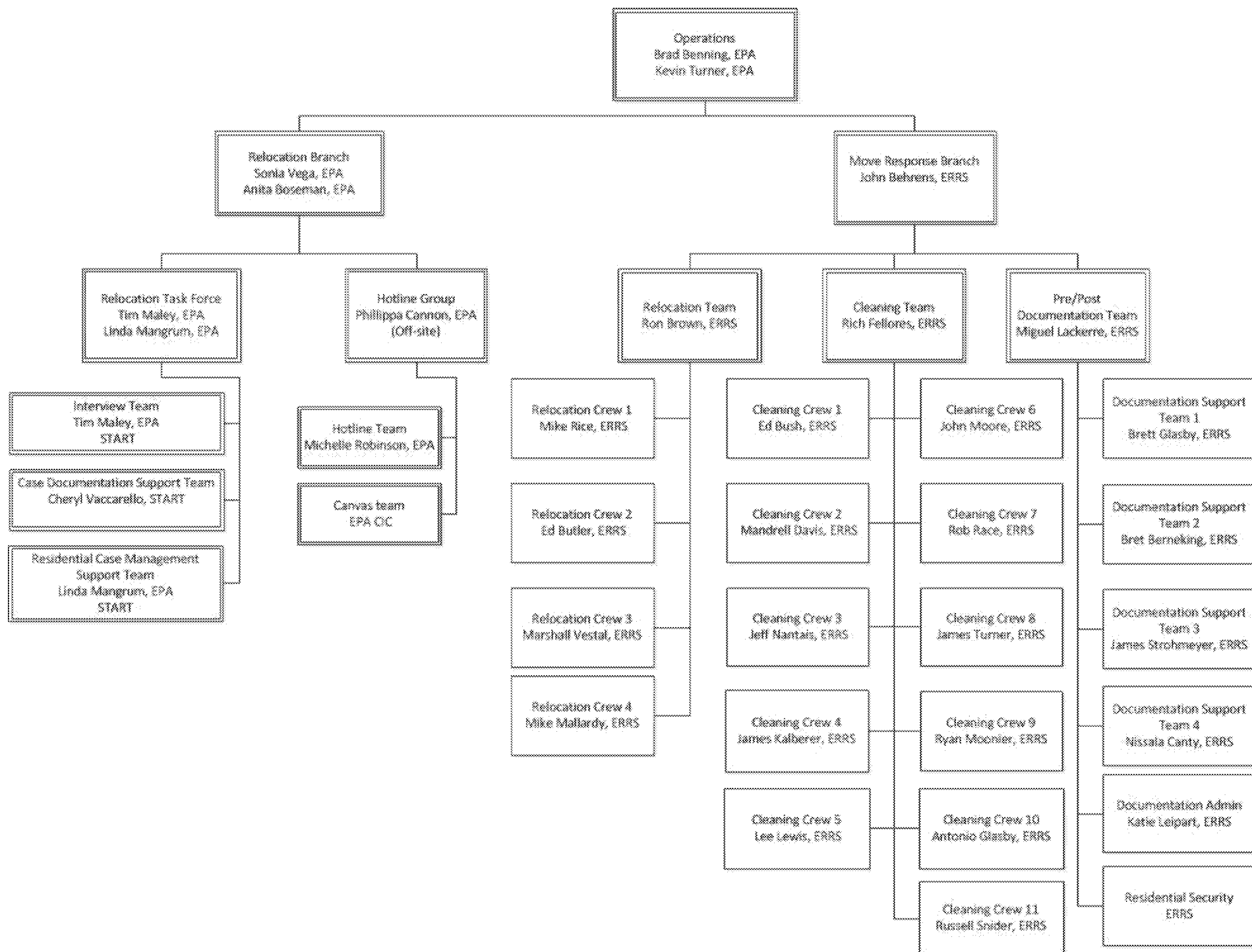
Date: _____

EPA Representative: _____

Date: _____

APPENDIX A
ORGANIZATIONAL CHART





APPENDIX B

RESIDENTS' GUIDE FOR TEMPORARY RELOCATION

A Residents' Guide to Temporary Relocation has been developed for distribution to residents at the time of the interview. The booklet was developed in consultation with the Superfund Division and ORC, and describes the site-specific implementation of URA relocation policies, presenting information in a user-friendly, question-and-answer format. Topics covered include preparing for temporary relocation, the cleaning process, temporary relocation benefits, options for temporary housing, returning home, and information about lead and arsenic. The booklet also contains information concerning the location and hours of the ICP, as well as a contact number to reach members of the Relocation Team.



Residents' Guide to Temporary Relocation

West Calumet Housing Complex
East Chicago, Indiana



United States Environmental Protection Agency
Region 5

September 2016

Residents' Guide to Temporary Relocation

United States Environmental Protection Agency
Region 5

September 12, 2016



Acknowledgments

The United States Environmental Protection Agency would like to express its appreciation to the East Chicago Housing Authority, the U.S. Department of Housing and Urban Development, the Indiana Department of Environmental Management, the Indiana State Department of Health, Indiana Department of Housing, the Agency for Toxic Substances and Disease Registry, the Centers for Disease Control and Prevention, and the United States Army Corps of Engineers for their valuable assistance in planning and carrying out the temporary relocation program at the West Calumet Housing Complex.

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1 PURPOSE OF THIS GUIDE

The U.S. Environmental Protection Agency (U.S. EPA) is offering to clean all homes in the West Calumet Housing Complex to prevent exposure to contamination. This is a voluntary effort and you have the final decision in having U.S. EPA clean your home. If you choose to have your home cleaned, U.S. EPA relocation staff will meet with you to discuss your specific needs for the temporary relocation and cleaning.

U.S. EPA has prepared this ***Residents' Guide to Temporary Relocation*** to answer some basic questions about the assistance you may receive during your temporary relocation. When you meet with the U.S. EPA Relocation Team, you will work out specific details for your situation. This guide answers questions about the who, what, where, when, and how of the temporary relocation process.

This guide also provides information about the work at the West Calumet Housing Complex and the temporary relocation process, but does not create a right or benefit or contain promises or guarantees by U.S. EPA.

2 HOW TO CONTACT U.S. EPA

This section of the *Residents' Guide* lists the address and telephone number where you can reach the U.S. EPA representatives who are responsible for the relocation operations for the West Calumet Housing Complex Removal Project.

U.S. EPA Command Post

U.S. EPA has set up its command post at the Old Carrie Gosch Elementary School, 455 E 148th St. in East Chicago. Representatives of U.S. EPA are directing the cleanup and relocation operations from the school.

U.S. EPA will be available to the public from 8 a.m. to 5 p.m., Monday through Friday. All U.S. EPA employees will be wearing agency identification badges at all times. Do not hesitate to ask to see an identification badge.

You can reach members of the U.S. EPA Relocation Team at the telephone number listed below. After working hours, you may call the number and leave a message with your name and phone number and someone will return your call.

The telephone number is:

219-801-2199

The U.S. EPA Relocation Team is available to assist you in the following ways:

- Finding suitable temporary housing for you and your family
- Making plans for your belongings
- Coordinating activities on your moving day
- Helping you adjust to your temporary housing
- Arranging for the payment of certain expenses related to your temporary relocation
- Taking care of any problems that may occur during your temporary relocation
- Keeping you informed about dates for moving and for returning to your home
- Answering your questions about the progress on the cleaning of your home

3 PREPARING FOR TEMPORARY RELOCATION

This section of the *Residents' Guide* tells you what you will need to do to get ready for the time that you will be away from your home.

Where will I be relocated while my home is being cleaned up?

U.S. EPA has made arrangements with several hotels and motels in the area, which are being used as temporary housing for families during the cleaning of their homes. The Relocation Team will work with you to find a suitable location for you and your family.

When will I need to move?

U.S. EPA representatives will meet with you to determine a date and time for your relocation.

U.S. EPA representatives will determine the date of your relocation by the availability of temporary housing and your specific needs.



How do I move to my temporary housing?

U.S. EPA can provide moving services, including moving vans and drivers who can help you move your family members and your belongings. The U.S. EPA Relocation Team will work with you to arrange for these services.

How long will I be away from my home?

You should plan on being away from your home for three to five days. U.S. EPA will notify you in advance if additional time is needed.

What should I do with my belongings during my temporary relocation?

First, make a list of all your belongings. You may also want to take photographs for your records. Keep this list with you, along with all of the papers that involve your relocation. The list will provide a record of your belongings.

For its own records, U.S. EPA will photograph and videotape each room of your home at the beginning of the cleanup. The videos and photos provide U.S. EPA with a record of the items that were present, and the condition of those items, at the time that the cleanup workers entered your home to prepare it for the cleanup process.



Before you leave your home, make sure dishes are cleaned and put away in cabinets; make sure all surfaces are clear such as counter tops, top of dressers and tables and the top of the refrigerator; and also dispose of garbage.

What are the packing instructions?

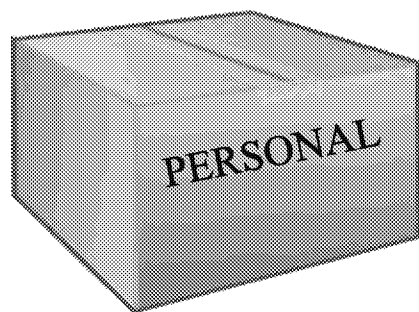
You will need to pack up your belongings in a special way described below. In general, you should take with you all of the items that you will need for normal day-to-day living during the time that you will be staying in your temporary housing.

You should also bring any personal documents that you might need to refer to, including papers and forms related to your temporary relocation. Items to bring to your temporary housing include the following:

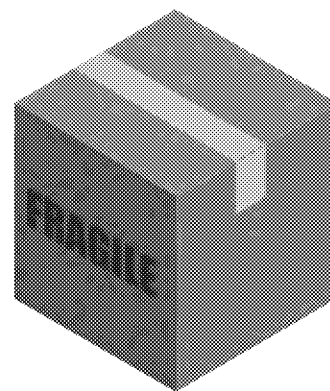
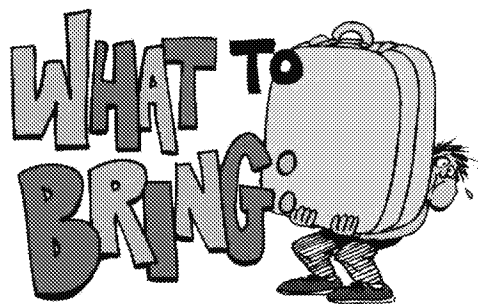
- Clothes and accessories (casual, work, night, sport)
- Personal care items and toiletries (shampoo, soaps, makeup, hair dryer, medications, sewing kit)
- Emergency and safety items (spare keys, first aid kit, flashlight)
- Personal papers and items related to personal business (insurance, automobile, finance, address book, checkbook, stationery, postage stamps)
- Important medical and/or legal documents, including birth certificates, passports, wills, school registration forms, and proof of pet vaccinations
- Valuables and jewelry
- Prescription drugs and other medication

U.S. EPA will provide you with packing materials, including boxes, bags and tape and cushioning material to use in packing any breakable items. Pack your belongings securely and seal all boxes closed with tape. Write "FRAGILE" on any box that contains breakable items. Make sure your name is on each box that is going with you.

All boxes should be numbered (for example, 1 out of 8) and labeled with your name. If you need more packing materials, contact the U.S. EPA Relocation Team.



If you have personal items that you do not want disturbed while your home is being cleaned, you may pack them securely and seal the boxes closed with tape. Write "PERSONAL" on any box that you want to remain secured in your home. These boxes do not need to be numbered.



What about my rent, mortgage, and utility payments?

You will have to continue to pay the rent or make the mortgage payments on your home during your temporary relocation, even though you will not be living there. Also continue to pay your utility bills. An allowance will be provided to you when you move back in to cover the cost of any utilities including water and electricity used during the cleaning process.

What should I do about my pets and house plants?

Pets (for instance, dogs and cats) cannot remain in your home while it is being cleaned up. You will need to make arrangements for your pets. Speak with your neighbors, friends, or relatives, who may be able to care for your pets during your temporary relocation. If this option is not available to you, a member of the U.S. EPA Relocation Team can help you arrange to place your pets in a kennel. U.S. EPA will transport the pets and pay the kennel costs. Please note, however, that pets must have received the required immunization shots before they can be placed in a kennel. Speak with a member of the U.S. EPA Relocation Team to make kennel arrangements.



If you have large fish tanks or aquariums, you may be able to leave them in your home with instructions on feeding. The U.S. EPA Relocation Team will make sure they are fed in your absence.

You may leave your house plants in your home. Please water them before you leave.

What should I do with food items?

Leave in your home any food that is in your kitchen cabinets that you will not need while you are away. These items could include canned food or boxed food (for example, cereals, cake mix, rice, spaghetti, spices). If you have any of these items on open shelving or storage units, U.S. EPA workers will move them, clean the area and then put the items back.

Try to use perishable food items (such as dairy products and other perishables, and frozen food) before you leave your home, or give them to neighbors, friends, or relatives. You may be able to take some of these items with you to your temporary housing location. If you think any of these items will not be good before you return, please throw them away.



Also, before you leave your home, be sure to empty all garbage and trash containers.

Can I leave my car or other vehicles on my property while I am away?

No. During the cleaning of your home, U.S. EPA contract workers will need work space outside your home to set up trailers and equipment. Parking space will be available at your temporary housing. You should make arrangements to move all vehicles from your property during your temporary relocation.

When you meet with U.S. EPA representatives to discuss the cleanup of your home, you will be given a form to sign which states that you agree to remove all vehicles from your property before you leave your home and before the U.S. EPA cleanup begins. As indicated on this form, any vehicles found on the property which will restrict cleanup activities would be removed by U.S. EPA. Any vehicles that are removed from your property will be stored in a secure lot until the cleanup of your home has been completed.

What about delivery of mail during my temporary relocation?

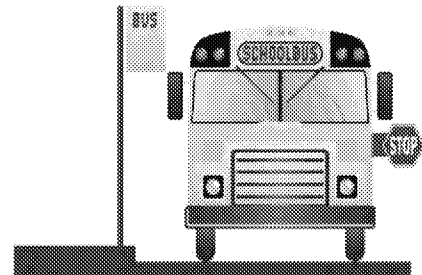
Due to the short duration of your relocation, we do not expect any issues with mail delivery. The post office will still be able to deliver mail to your box. If you are currently receiving forms of assistance such as Aid to Families with Dependent Children (AFDC), it is extremely important that you do not change the address at which you receive your mail.

What about school transportation?

U.S. EPA will arrange to take your children to and from school, if needed. Speak with a member of the U.S. EPA Relocation Team if your children will need this service. There is no cost for the service.

What about security while my home is vacant?

During your temporary relocation, U.S. EPA will have security guards patrolling your property.



4 THE CLEANING PROCESS

This section of the *Residents' Guide* tells you what will happen inside your home while you are away.

How does U.S. EPA determine which homes need to be cleaned up?

U.S. EPA is offering to clean all homes in the West Calumet Housing Complex to prevent exposure to contamination. This is a voluntary effort and you have the final decision to allow U.S. EPA to clean your home. If you choose to have your home cleaned, U.S. EPA relocation staff will meet with you to discuss your specific needs for the temporary relocation and cleaning.

How will I know that cleanup has begun at my home?

U.S. EPA will be using many crews with more than 100 total workers to perform performing the necessary work to clean up your home. One of these crews will bring its trailers and equipment to your property and park them outside your home. A fence will be temporarily installed around the working area, and a security guard will be on-site after working hours. The cleanup crew will work from about 7 a.m. to 7 p.m., Monday through Friday and some Saturdays.

U.S. EPA will hand out information packets to residents about the work being done.

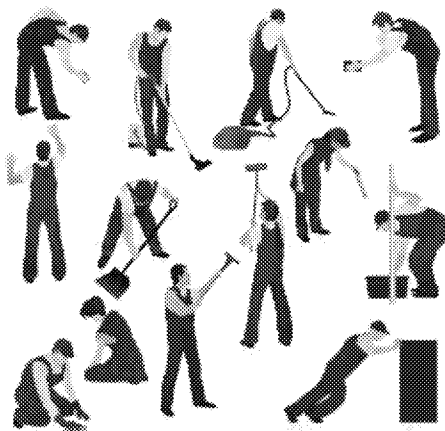
What happens to my belongings during the cleanup?

The items you leave in your home will remain where you left them and will not be removed. Before the workers begin the cleanup of your home, they will videotape each room and photograph the items you left in your home. The videos and photos provide U.S. EPA with a record of the items that were present, and the condition of those items, at the time the cleanup workers entered your home to prepare it for the cleanup process.

What does the cleanup process involve?

Workers who are trained and experienced in hazardous materials cleanup will be cleaning your home. Workers who enter your home will wear special equipment to keep from tracking dust and dirt into your home.

Cleaning will primarily consist of HEPA vacuuming, steam cleaning, wet wiping, washing and mopping the residence and its contents. A negative air unit will minimize the amount of airborne dust. In general a "top down" approach will be applied to cleaning. Work will start at the ceiling and progress down to the floor. Particular attention will be paid to cleaning horizontal surfaces.



Soft furniture, carpeting, large comforters and drapes will be steam-cleaned. Walls, cabinets and electronic items will be wet wiped and floors will be mopped. The furnace/air conditioner will be shut-off during cleaning in order to clean ducts, and the filter will be replaced upon completion of cleaning.

You will be responsible for cleaning any bedsheets, pillow cases and blankets. These items require normal cleaning. Mattresses will not be cleaned.

Contaminated cleanup materials will be bagged and placed into a roll-off box staged in the support zone outside of the east entrance to the complex. Decontamination water will be drummed and stored in the staging area.

Can I go inside my home while it is being cleaned up?

No. Workers will be working in your home and furniture and floors may be wet. There may also be equipment left in your home while the cleaning is taking place. By staying out of your home, crews can work faster and safer so you can return home sooner.

What if I need something from the belongings I left in my home?

U.S. EPA asks that you plan carefully, making sure that you bring with you all of the items that you know you will need while you are away from your home. Ask neighbors, friends, or relatives to store any other items you might need during your temporary relocation.

5 TEMPORARY RELOCATION BENEFITS

You will have some additional expenses because of your temporary relocation. This section of the ***Residents' Guide*** tells you which of these expenses will be paid by U.S. EPA as temporary benefits, which expenses will be reimbursed, and which expenses you will be responsible for paying.

Any benefits you receive during your temporary relocation are called Temporary Relocation Benefits and Assistance for Superfund Sites. The following is a general description of the types of assistance that are available.

What temporary benefits are available to me, and how do I apply for them?

U.S. EPA is providing temporary benefits to persons temporarily relocated during the cleanup of their homes. The U.S. EPA Relocation Team will determine who is eligible to receive these benefits.



Before you are relocated, a U.S. EPA Relocation Team member will help you fill out the necessary forms to apply for your relocation assistance. Although the amount will vary according to individual needs, the eligible categories of assistance include:

- Temporary housing during the period of time that U.S. EPA has determined that you must be relocated (generally this will be three to five days).
- Money for incidental costs.
- If you are housed in a hotel or motel, money for food.

When you are relocated from your home, you will receive a letter from U.S. EPA that tells you what assistance you and your family are eligible to receive, and the procedures for making claims and for appealing relocation assistance determinations.

How will my temporary relocation benefits be paid?

Your temporary relocation benefits will be in the form of a pre-paid credit card loaded with funds. U.S. EPA Relocation Team staff will discuss with you the benefits you will receive.

Which of my relocation expenses will be covered?



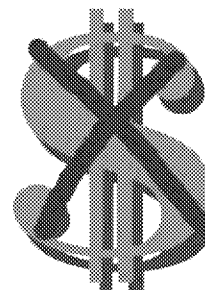
Temporary relocation benefits are not intended to cover all of the expenses or losses associated with the contamination. You can apply for money to reimburse you for certain costs which are related to your relocation. The costs that can be reimbursed include:

- Mileage differential from temporary housing to work. For example, if you drove five miles to work from your home each way and your temporary housing is now 9 miles away, you would be eligible to receive mileage expenses for eight miles per day (four miles each way).
- Public transportation costs you incur while away from your home during this temporary relocation. *You must keep receipts for these expenses.*

Upon returning to your home, \$50.00 will be added to the pre-paid card you received. This allowance covers the cost of any utilities including water and electricity the cleaning crew may use during the cleaning process. You are eligible to receive this allowance, regardless of the type of temporary housing to which you are relocated. Please note that the allowance is added within one week *after* you have returned to your home.

Which of my expenses will not be covered?

U.S. EPA will not pay your rent or the mortgage on your home during your temporary relocation (see Section 3, "Preparing for Temporary Relocation"). Because you would be paying these costs if you were not relocated, these payments are not considered to be additional costs caused by your relocation, even though you will not be living in your home.



Other expenses for which you will *not* be reimbursed include but are not limited to:

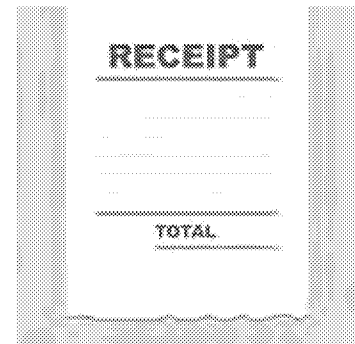
- Expenses that you incur without the approval of U.S. EPA
- Damage caused by pets
- Damage which you, your family, or your guests cause to your temporary housing, its furniture, or recreation equipment
- The cost of temporary housing beyond the date on which your temporary relocation period ends
- Expenses related to accidents, injuries, or illnesses that you may experience during your temporary relocation period
- Charges to your room if you are housed in a hotel or motel (such as room service or other food, beverages, long distance telephone charges, video rentals, pay-per-view television programs)

- Damage or loss of personal property brought to the temporary residence
- Legal fees or other costs for preparing a claim for relocation payment or for representing the claimant
- Expenses for searching for temporary housing
- Duplicate benefits

What are my responsibilities while I am receiving this assistance?

During the time that you are receiving Temporary Relocation Benefits and Assistance for Superfund Sites, your responsibilities include but are not limited to the following:

- Helping U.S. EPA to determine the types of assistance you and other members of your household will require by providing the information the U.S. EPA Relocation Team requested during their interview with you.
- Informing the U.S. EPA Relocation Team about any special needs (for example, arrangements for pets, school transportation for children, medical problems or disabilities of members of your household)
- Retaining all forms, bills, and receipts associated with your relocation
- Complying with the rules of the housing (hotel, motel, or apartment) where you are staying until you return to your home
- Complying with the terms of your reimbursement agreement
- Making arrangements on your own for transportation to work, to medical or other appointments, and to the post office or other errands.
- Taking due care of your temporary residence
- Leaving your temporary residence when you are notified that your home is ready for you to live in again.

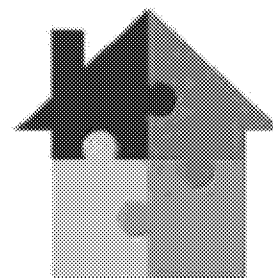


6 OPTIONS FOR TEMPORARY HOUSING

This section of the *Residents' Guide* tells you about the types of housing that may be available for your temporary relocation, and what your responsibilities are while you live there.

What types of housing is U.S. EPA using for temporary relocations?

You may choose to stay with relatives or friends for the period of your temporary relocation. If you do not have this option, a member of the U.S. EPA Relocation Team will place you in a hotel or motel that is available at the time of your temporary relocation. Arrangements have been made with several hotels and motels throughout East Chicago for the temporary relocation of West Calumet Housing Complex residents.



A member of the U.S. EPA Relocation Team will meet with you to discuss any special needs you may have in an effort to determine the most suitable housing for you and your family. Some factors that will be considered are whether your household includes small children, elderly persons, or pets. For example, if you are placed in a hotel or motel, and your household includes small children or persons requiring special medications, you may request the use of a small refrigerator during your temporary relocation.

As another option, you may try on your own to find rental or sublet housing that will be available for the three to five days of your temporary relocation. However, you must have U.S. EPA's approval before you arrange to rent or sublease housing.

Who pays for my temporary housing?

If you are relocated to a hotel or motel under arrangements that are made by U.S. EPA, U.S. EPA will pay the housing costs. If you choose to rent or sublet your own temporary housing, you will have to pay and then request reimbursement. You may be reimbursed up to a maximum of \$94 per night. However, you must obtain the approval of U.S. EPA before you make any commitments to a landlord or a sublease.

What should I know if I am relocated to a hotel or motel?

If you are housed in a hotel or motel for your temporary relocation, be aware of the following general policies:

- Please be courteous to the other guests in the hotel. No loud music or noise is allowed in guest rooms or in public areas.
- Please observe all "No Smoking" signs in public areas, and do not smoke in non-smoking rooms.



- All children must be accompanied by an adult or guardian at all times. No running or playing is permitted in the hallways or public areas.
- You are responsible for paying the hotel for all local and long distance telephone calls. There may be an additional charge to have the telephone turned on in your room. Incoming calls are free.
- No pets or animals are allowed inside the building or outside of the hotel unless permission is given from the hotel management.
- Cooking or food preparation is not allowed inside hotel rooms. Hot plates, microwave ovens, or other cooking devices are not permitted unless supplied by the hotel.
- Please do not track mud or dirt into hotel rooms.
- No extra furniture is allowed in hotel rooms unless you have obtained permission from the hotel management.
- Housekeeping service is provided in most of the hotels; however, you are still responsible for the general condition of your room. You must allow the housekeeping attendant to enter the room daily to clean and to provide fresh linens.
- Please leave wet towels and dirty bed linens in your hotel room. Do not place these items in the hallway. The hotel housekeeping service will pick up these items daily.
- Please put litter in appropriate trash containers. Trash cans are provided in the laundry rooms, and dumpsters are located outside the building. If you have excess trash in your room, leave it in the wastebasket in your room or take it to a dumpster. Do not leave it in the hallway.
- Most of the hotels have swimming pools that may or may not have lifeguards in attendance. Please observe the hotel rules for use of the pool. Also check at the main desk of your hotel or motel to see if you need to pay a fee to use the pool or other recreational facilities.
- You are responsible for any damage that occurs in your room during your temporary relocation, such as broken furniture and staining of carpets or linens. If the hotel charges a replacement fee for these items, you will be responsible for paying it directly to the hotel. You will not be reimbursed for these costs.
- You may be charged for any persons staying with you in your room who were not members of your household on the date of your relocation. U.S. EPA will not pay this extra charge.

In addition, your hotel or motel may have other rules or requirements for its guests. You are expected to comply with these rules during your temporary relocation.

Most of the hotels and motels that U.S. EPA is using as temporary housing have coin-operated washers and dryers. Speak to someone at the main desk of your hotel about

the location of these laundry facilities and the cost of each machine. If you have a washer and dryer in your home, you will be allowed reimbursable expenses every four days.

Keep in mind that U.S. EPA is paying for your housing costs **only**.

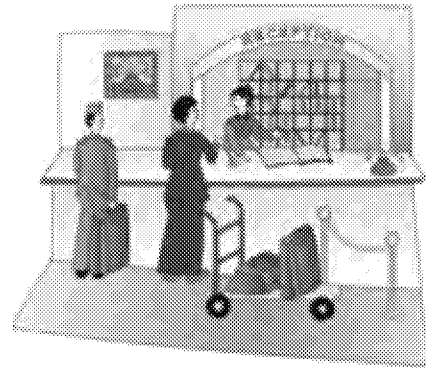
You are expected to pay any additional charges that you make to your hotel/motel room, such as charges for telephone calls, room service or other food, beverages, video rentals, or pay-per-view television programs.

What should I know about leaving my temporary housing?

U.S. EPA will call you once your house has been cleaned to let you know that you will return home the following day. See Section 7 for more information about moving back to your home.

If your temporary housing is in a hotel or motel, you are expected to leave by 11 a.m. of the date your temporary relocation ends.

When you leave the hotel or motel, you must check out by going to the main desk and informing the clerk that you are checking out. At that time, you will have to pay all bills for services other than the cost of your room. As you leave, give the desk clerk the keys to all rooms used by you and your family members.



If you do not leave your temporary housing by the time indicated on your notice from U.S. EPA, you will be responsible for the charges for the additional time that you remained there.

What if I am asked to leave my temporary housing?

If the manager of your temporary housing determines that you or other members of your household are not following the policies of that housing, you may be asked to leave.

If you are asked to leave the housing that U.S. EPA arranged for you, the U.S. EPA Relocation Team may not move you to alternative housing. Your relocation assistance may be terminated, and you may have to find and pay for temporary housing on your own.

Reasons for terminating relocation assistance include but are not limited to the following:

- Failure to take due care of your temporary housing
- Failure to comply with hotel or motel rules or with the terms of your lease, if you are housed in an apartment
- Failure to pay charges for which you are liable
- Misrepresentation or fraud

- Change of primary residence
- Criminal activities

If you believe you have been improperly asked to leave your temporary housing, please contact the U.S. EPA Relocation Team.

7 RETURNING TO YOUR HOME

This section of the ***Residents' Guide*** tells you what will happen when your temporary relocation ends, and also tells you how to apply for money to replace items that could not be cleaned.

How will I know when I can return to my home?

A member of the U.S. EPA Relocation Team will contact you to arrange a date and time for you to return to your home. They will meet you at your temporary residence and escort you back to your home.

Can U.S. EPA help me move back to my home?

Moving services can be provided to take you and your belongings back to your home. Contact a member of the U.S. EPA Relocation Team to arrange for this service.



What happens if any of my items get damaged during the cleaning process?

If any items get damaged, U.S. EPA will provide an independent assessor to estimate the value of the item. Using photographs and videotapes of your belongings, an independent appraiser determines a fair value for the items that need to be replaced. The assessment is then presented to you for your approval. If you agree with the appraisal, you will sign off on the assessment. The U.S. EPA Relocation Team will work with you to get reimbursement.

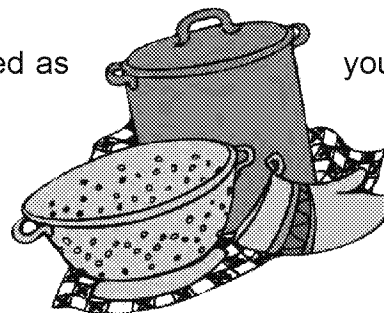
If you do not agree with the appraisal, you may appeal in writing. Speak with a member of the U.S. EPA Relocation Team for further details about the appeal procedures.

Can I use clothes, towels, and bedding that I left behind in my home?

Yes. You should launder them as you normally do. Please note that if you do choose to throw items away after your home has been cleaned, U.S. EPA cannot reimburse you for the loss of these items.

Are my dishes and cookware safe to use?

Yes. These items are safe to use and should just be cleaned as normally would.



you

8 INFORMATION ABOUT LEAD AND ARSENIC

This section of the *Residents' Guide* provides detailed information about lead and arsenic, the contaminants found in the homes being cleaned by U.S. EPA during the West Calumet Housing Complex Removal Project.

What is arsenic?

Arsenic occurs naturally in soil and in many kinds of rock, especially in minerals and ores that contain copper or lead. Arsenic contamination may be associated with lead smelting and refining. Arsenic may also be added to other metals to form metal mixtures or alloys with improved properties – for example, in production of lead-acid batteries for automobiles.

Because arsenic is found naturally in the environment, people in most communities are exposed to some arsenic by eating food, drinking water, or breathing air. Residents in West Calumet may take in additional arsenic by swallowing or breathing in small particles of dirt and dust. The amount of arsenic that people can absorb through the skin is minimal. Once a person is removed from the source of arsenic, most of it will leave their bodies within several days.

How does arsenic affect my health?

Children and adults who are exposed to arsenic may experience irritation of the stomach and intestines, blood vessel damage, skin changes, and reduced nerve function. Long-term exposure in children may contribute to learning disabilities and other neurological effects. High levels of arsenic can also increase the risk of developing cancer.

What is lead?

Lead is a naturally occurring element found in small amounts in the earth's crust. While it has some beneficial uses, it can be toxic to humans and animals.

Lead can be found in all parts of our environment – the air, the soil, the water, and even inside our homes. Much of our exposure comes from the use of fossil fuels (including past use of leaded gasoline), some types of industrial facilities, and past use of lead-based paint in homes. Lead and lead compounds have been used in a wide variety of products found in and around our homes, including paint, ceramics, pipes and plumbing materials, solders, gasoline, batteries, ammunition, and cosmetics.

How does lead affect my health?

Lead damages the nervous system which can result in changes to IQ and behavior. Children who have been exposed to high levels of lead over a long period of time can have lower IQ, attention-deficit hyperactivity disorder (ADHD), or delinquency. Since the brain develops before birth but continues for the first several years of life, pregnant women and children six years of age and under are at higher risk than older children and adults.

Will every exposed person have symptoms?

No, not necessarily.

Is there a test to tell if I have been exposed?

Arsenic. Yes. There are tests available to measure arsenic in your blood, urine, hair and fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6 to 12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict whether the arsenic levels in your body will affect your health.

Lead. Yes. A blood test is available to see if you have been exposed to lead. U.S. EPA recommends that children and pregnant women have their blood tested. You can contact the East Chicago Health Department at 219-391-8467 to have the blood lead test performed.

9 BACKGROUND INFORMATION

The U.S. Smelter and Lead Refinery Inc. (USS Lead) was constructed in East Chicago, Lake County, Indiana in the early 1900s. USS Lead operated first as a primary and then secondary lead smelter from 1920 to 1985. Smelting operations generated two primary waste materials – blast-furnace slag and lead-containing dust. Primary lead smelting volatilized metals, including arsenic. Blast-furnace slag was stockpiled south of the plant building and spread once a year over an adjoining 21-acre wetland. During operations, some lead-containing dust was deposited on area soils by the wind.

In addition to the USS Lead facility, there are several other potential sources of lead and arsenic contamination in the residential area, including the former Anaconda Copper Company (Anaconda) site and the E.I. DuPont de Nemours Company (DuPont) facility. Anaconda occupied the area along the Indiana Harbor Canal where the Carrie Gosch Elementary School and the West Calumet Housing Complex immediately south of the school are currently located (the southwest portion of the Residential Area). The Anaconda site manufactured white lead and zinc oxide, and refined metal. The DuPont facility, which was located south of the USS Lead site and east of the former USS Lead facility, manufactured the pesticide lead arsenate.

This ***Residents' Guide*** focuses on the West Calumet Housing Complex. Other portions of the site are also being evaluated for cleanup. Yards within the site are contaminated with lead and arsenic.

U.S. EPA is offering to clean up all homes in the West Calumet Housing Complex to prevent exposure to lead and arsenic dust is present at hazardous levels. See Section 8 regarding health effects of lead and arsenic. The residents of each contaminated property are being asked to relocate temporarily while the cleaning is being done.

U.S. EPA's cleanup of this site is authorized by a federal law, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund." Superfund authorizes U.S. EPA to identify sites where hazardous substances have been released into the environment, and directs U.S. EPA to take action if the hazardous materials could endanger public health or the environment.

The cleanup activities are being performed by employees and authorized representatives of U.S. EPA, assisted by agents, contractors, and subcontractors of U.S. EPA. Many other government agencies and social service organizations are also involved, including the Indiana Department of Environmental Management, the Agency for Toxic Substances and Disease Registry, the East Chicago Housing Authority, the Indiana State Department of Health, the Indiana Department of Housing, and the U.S. Department of Housing and Urban Development.

APPENDIX C

**LIST OF HOTELS UNDER CONTRACT
FOR TEMPORARY HOUSING
(AS OF AUGUST 19, 2016)**

APPENDIX C
LIST OF HOTELS UNDER CONTRACT FOR TEMPORARY HOUSING
(AS OF AUGUST 19, 2016)

Econo Lodge

4000 Calumet Avenue
Hammond, IN 46320

Fairfield Inn & Suites

7720 Corinne Drive
Hammond, IN 46323

Hampton Inn & Suites

2842 Carlson Drive
Hammond, IN 46323

APPENDIX D
LIST OF LOCAL AND EMERGENCY RESOURCES

APPENDIX D LIST OF LOCAL AND EMERGENCY RESOURCES

North Township Trustee's Office
2105 Broadway
East Chicago, IN 46312
219-398-2435

Hours: Tuesday – Friday 8:00 am – 6:00 pm

North Township Trustee's Office (Main)
5947 Hohman Avenue
Hammond, IN 46320
219-932-2530

Hours: Monday – Thursday 8:00 am – 6:00 pm

Emergency cases will be seen without an appointment.

www.northtownshiptrustee.com

Hospitals

(Approximate distances from hotels or West Calumet Housing Complex provided to determine the closest hotel to specific location)

Franciscan St. Margaret Hospital

5454 Hohman Avenue
Hammond, IN 46320
219-932-2300

(Approximately 4 miles from West Calumet Housing Complex)

(Approximately 2.5 miles from EconoLodge)

St. Catherine Hospital

4321 Fir Street
East Chicago, IN 46312
219-392-1700

(Approximately 2 miles from West Calumet Housing Complex)

(Approximately 5 miles from EconoLodge)

Community Hospital

901 MacArthur Boulevard
Muenster, IN 46321
219-836-1600

(Approximately 5 miles from Fairfield Inn)

(Approximately 4.5 miles from Hampton Inn)

East Chicago Police Department

2301 E. Columbus Drive
East Chicago, IN 46312
219-391-8331 (non emergency)

East Chicago Fire Department

3901 Indianapolis Boulevard
East Chicago, IN 46312
219-391-8472 (non emergency)

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-14 to Douglas Ballotti Declaration:

Memorandum, *Recommended Screenings Levels for Airborne Arsenic and Lead During Digging Operations in Zone -3 of the USS Lead Site*, from Keith Fusinski, Toxicologist, EPA to Thomas Alcamo, Remedial Project Manager, EPA (Oct. 13, 2016)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
 9311 GROH ROAD
 GROSSE ILE, MI 48138

MEMORANDUM

SUBJECT: Recommended Screening Levels for Airborne Arsenic and Lead
 During Digging Operations in Zone-3 of the USS Lead Site

FROM: Keith Fusinski, PhD Toxicologist US EPA
 Superfund Division, Remedial Response Branch #1, Remedial Response Section #1

TO: Tom Alcamo, Remedial Project Manager, US EPA
 Superfund Division, Remedial Response Branch #1, Remedial Response Section #1

And

Tim Drexler, Remedial Project Manager, US EPA
 Superfund Division, Remedial Response Branch #2, Remedial Response Section #5

DATE: 10/13/2016

STATEMENT OF THE ISSUES

In order to protect both residents and workers of the USS Lead Superfund Site, EPA will perform particulate monitoring during digging operations in the residential neighborhood. A DustTrak particulate monitor will monitor particulates in the air during digging operations. If total concentrations of dust exceed the National Ambient Air Quality Standard (NAAQS) of $150 \mu\text{g}/\text{m}^3$, EPA will implement dust suppression measures. Please note, the NAAQS standard is for particulate material with a diameter of 10 micrometers (PM_{10}), in order to be more protective, alarms are set to trigger if concentrations of total particulates of all sizes exceed $150 \mu\text{g}/\text{m}^3$. Concurrently, dust will be collected on filters which will be sent to an accredited laboratory for analytical metals analysis. These sample results will be used to correlate particulate monitoring with lead and arsenic concentrations in the air to protect residents.

The National Institute of Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA) have developed and published air concentrations of various chemicals to be used to protect a healthy adult male from short term exposure to contaminants in the workplace. EPA has no such value to protect residents from short term exposure to contaminants. The Agency for Toxic Substances

and Disease Registry (ATSDR) does not have acute Minimal Risk Levels (MRLs) for inhalation of lead and arsenic. I was asked by RPM Drexler to develop protective residential short term screening levels for arsenic and lead to evaluate samples collected during digging operations at the USS Lead Site.

DERIVATION OF RESIDENTIAL PROTECTIVE LEVELS FROM OCCUPATIONAL STANDARDS

Digging operations will take place over an eight to ten hour period each day. The NIOSH recommended exposure limit (REL) for lead is 0.050 mg/m³ which is based upon a ten hour time weighted average (TWA). The OSHA permissible exposure limit (PEL) for arsenic is 0.010 mg/m³ for an eight hour TWA.

Workers are generally exposed to a site for 40 hours per week (8 hours per day x 5 days). Residents are exposed to the site for 168 hours per week (24 hours per day x 7 days). These means that residents are onsite 4.2 times longer than workers.

Additionally, NIOSH and OSHA recommended worker concentrations are based upon effects of exposure of a healthy adult male. Generally, EPA assumes a 10-fold uncertainty factor to protect sensitive populations from effects of hazardous chemicals.

NIOSH and OSHA values above should be divided by an uncertainty factor of 42 (4.2 x 10) to protect the health of children and women of child bearing age in the residential neighborhood.

Therefore, the lead and arsenic residential protective levels (RPL) derived from occupational standards are:

$$\text{Lead} = 0.050 \text{ mg/m}^3 / 42 = 0.0012 \text{ mg/m}^3$$

$$\text{Arsenic} = 0.010 \text{ mg/m}^3 / 42 = 0.00023 \text{ mg/m}^3$$

CALCULATION OF LEAD AND ARSENIC IN AIRBORNE DUST LEVEL

Ambient lead and arsenic concentrations will not be available in real time because the filters require offsite laboratory analysis. The below calculations demonstrate that the action level EPA has established for particulate matter is also health protective for the metals associated with airborne particulates. We may assume that the maximum soil concentration of arsenic or lead detected in soil of Zone-3 of the USS Lead Site will become airborne and then use the above derived RPLs to calculate an equivalent dust concentration that is protective for lead and arsenic.

The following calculation was used to determine particulate matter screening levels to protect residents in the area from lead and arsenic exposures:

Protective Dust Level = RPL / Max soil concentration x conversion factor

The maximum soil concentration for lead in the Zone-3 area is 3,681 mg/kg. The maximum soil concentration for arsenic in Zone-3 is 253 mg/kg.

Therefore,

Dust screening level for lead = $0.0012 \text{ mg/m}^3 / 3,681 \text{ mg/kg} \times 1 \times 10^6 \text{ mg/kg} = 0.326 \text{ mg/m}^3$

Dust screening level for arsenic = $0.00023 \text{ mg/m}^3 / 253 \text{ mg/kg} \times 1 \times 10^6 \text{ mg/kg} = 0.941 \text{ mg/m}^3$

Note that these concentrations are well above the $150 \text{ } \mu\text{g/m}^3$ action level for real time particulate monitoring, as such the real-time particulate monitoring more protective for the residents than the laboratory screening levels.

During digging operations, residents should be advised to keep their windows closed. In order to limit the tracking of dust, it should be stressed that they should remove their shoes prior to walking into the home, or leave them on mat near the door.

United States of America, State of Indiana
v.
Atlantic Richfield Company and E.I. Du Pont De Nemours and Company
No. 2:14-cv-00312

Memorandum in Opposition to Applicants' Motion to Intervene

Attachment A-15 to Douglas Ballotti Declaration:
EPA USS Lead Post-Excavation Satisfaction Survey Results, Compiled

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

Please indicate your level of satisfaction with the contractor's work **by checking a numerical rating on the table below** using the numerical definitions from the rating scale below, then please sign & date the form.(additional comments may also be provided in the space below, at the option of the EPA COR).

9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u> / </u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature:

[REDACTED SIGNATURE]

Date: 12-9-16

EPA Satisfaction Survey Form

USS Lead – Zone 3 Excavation 2016

Remediation Contractor: Environmental Restoration, LLC
 Property Identifier Number:
 Property Address:
 Property Owner's Name:

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature:

Date: 12-9-16

Marked by
 by owner
 mistake
 - Charles
 Rodriguez
 EPA

EPA Satisfaction Survey Form

USS Lead – Zone 3 Excavation 2016

Remediation Contractor: Environmental Restoration, LLC
 Property Identifier Number: [REDACTED]
 Property Address: [REDACTED]
 Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>




Additional Comments:

Property Owner's Signature:

[REDACTED SIGNATURE]

Date: 12-7-16

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: 
Property Address: 
Property Owner's Name: 

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature



Date: 12-9-16

EPA Satisfaction Survey Form
USS Lead – Zone 2 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

Please indicate your level of satisfaction with the contractor's work **by checking a numerical rating on the table below** using the numerical definitions from the rating scale below, then please sign & date the form.(additional comments may also be provided in the space below, at the option of the EPA COR).

9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>XXX</u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

All cleanup and restoration work was performed in a timely and professional manner by highly skilled tradesmen.

Property Owner's Signature:

[REDACTED]

Date: 12/1/2016

EPA Satisfaction Survey Form

USS Lead – Zone 2 Excavation

2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	_____	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature:

[REDACTED]

Date:

12/22/2016

EPA Satisfaction Survey Form

USS Lead – Zone 2 Excavation 2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors. This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
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5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u> </u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

The restoration process exceeded my expectations. I am very satisfied
with the results and services.

Property Owner's Signature: [REDACTED]

Date: 12-1-16

EPA Satisfaction Survey Form
 USS Lead – Zone 2 Excavation
 2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

Please indicate your level of satisfaction with the contractor's work **by checking a numerical rating on the table below** using the numerical definitions from the rating scale below, then please sign & date the form.(additional comments may also be provided in the space below, at the option of the EPA COR).

9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	_____	5	_____
9	_____	4	_____
8	<u>very good</u>	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature: [REDACTED]

Date: 12-2-16

EPA Satisfaction Survey Form
USS Lead – Zone 2 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature:

[REDACTED]

Date: 12/3/16

EPA Satisfaction Survey Form
USS Lead – Zone 2 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature: [REDACTED]

Date: 12/3/16

EPA Satisfaction Survey Form
USS Lead – Zone 2 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Very Good Job Done

Property Owner's Signature: [REDACTED]

Date: 12-1-16

EPA Satisfaction Survey Form
 USS Lead – Zone 2 Excavation
 2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)


Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10		5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature: [REDACTED]

Date: 12/3/16

EPA Satisfaction Survey Form
USS Lead – Zone 2 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u> </u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature

[REDACTED]

Date: 12/3/16

EPA Satisfaction Survey Form

USS Lead – Zone 2 Excavation 2016

Remediation Contractor: Environmental Restoration, LLCProperty Identifier Number: [REDACTED]Property Address [REDACTED]Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of capturing your level of satisfaction with the work of the above-identified EPA contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>
9	<input type="checkbox"/>	4	<input type="checkbox"/>
8	<input type="checkbox"/>	3	<input type="checkbox"/>
7	<input type="checkbox"/>	2	<input type="checkbox"/>
6	<input type="checkbox"/>	1	<input type="checkbox"/>

Additional Comments:

THE CREW DID AN VERY EXCELLENT JOB
IN EVERYTHING THAT WAS DONE

Property Owner's Signature: [REDACTED]Date: 12-21-16

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u> X </u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature:

[REDACTED]

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC

Property Identifier Number: [REDACTED]

Property Address: [REDACTED]

Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature: [REDACTED]

Date: 11-30-16

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>
9	<input type="checkbox"/>	4	<input type="checkbox"/>
8	<input type="checkbox"/>	3	<input type="checkbox"/>
7	<input type="checkbox"/>	2	<input type="checkbox"/>
6	<input type="checkbox"/>	1	<input type="checkbox"/>

Additional Comments:

*EXCEPTIONAL ATTENTION to
 detail AND communication
 OF DETAILED WORK*

Property Owner's Signature: [REDACTED]

Date: 12/16/16

EPA Satisfaction Survey Form

USS Lead – Zone 3 Excavation

2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>10</u>	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature:

[REDACTED]

Date: 11-22-16

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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<u>7-8</u>	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	_____	5	_____
9	_____	4	_____
8	<u>X</u>	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature:

[REDACTED]

Date: 12-6-16

EPA Satisfaction Survey Form

USS Lead – Zone 3 Excavation

2016

Remediation Contractor: Environmental Restoration, LLC
 Property Identifier Number: [REDACTED]
 Property Address: [REDACTED]
 Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	<u> </u>
9	<u> </u>	4	<u> </u>
8	<u> </u>	3	<u> </u>
7	<u> </u>	2	<u> </u>
6	<u> </u>	1	<u> </u>

Additional Comments:

Property Owner's Signature: [REDACTED]

Date: 12-5-16

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	_____	5	_____
9	_____	4	_____
8	<u>10 / ✓</u>	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature:

[REDACTED]

Date: 12-6-16

EPA Satisfaction Survey Form

USS Lead – Zone 3 Excavation

2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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9-10	"excellent"
7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Property Owner's Signature:

[REDACTED SIGNATURE]

Date: 12-2-16

EPA Satisfaction Survey Form
USS Lead – Zone 3 Excavation
2016

Remediation Contractor: Environmental Restoration, LLC
Property Identifier Number: [REDACTED]
Property Address: [REDACTED]
Property Owner's Name: City Park [REDACTED]

(Above information to be filled out by remediation contractor prior to delivery of form to Property Owner)

Instructions to Property Owner:

This form is provided to you as a means of trying to capture your level of satisfaction with the work of the above-identified remediation contractor, as applicable to the soil cleanup action at your property. **The U.S. Environmental Protection Agency (EPA) is very interested in your opinion regarding the work performed by its contractors.** This form is intended to provide an easy means for you to express your opinion about the work performed on your property.

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7-8	"very good"
5-6	"acceptable"
3-4	"poor"
1-2	"very poor"

Property Owner's Satisfaction Rating Regarding Contractor's Work

10	<u>✓</u>	5	_____
9	_____	4	_____
8	_____	3	_____
7	_____	2	_____
6	_____	1	_____

Additional Comments:

Fast & courteous. Above our expectations

Property Owner's Signature: [REDACTED]

Date: 12/07/16